

Network Storage System  
90

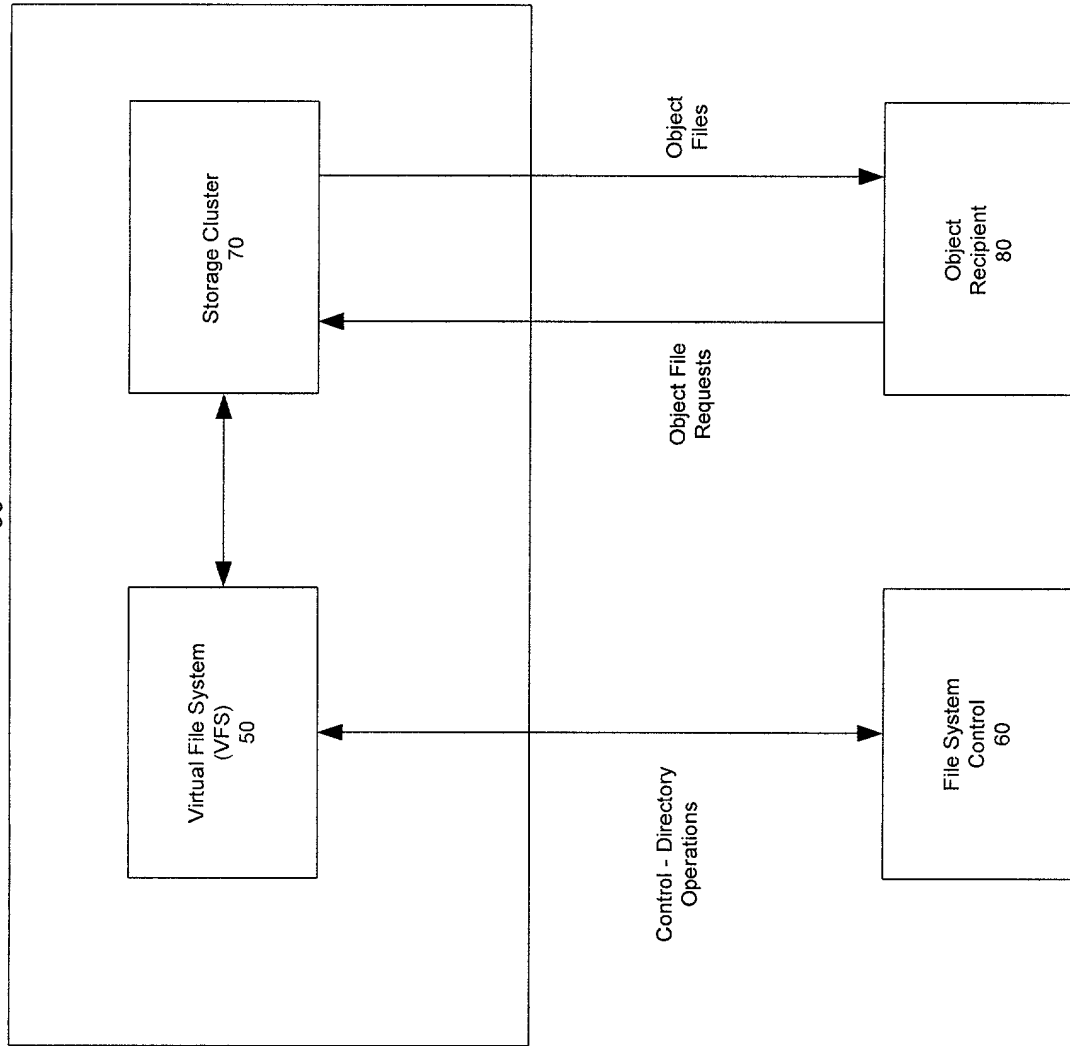


Figure 1

FIG. 2 is a block diagram of a system architecture for a storage service.

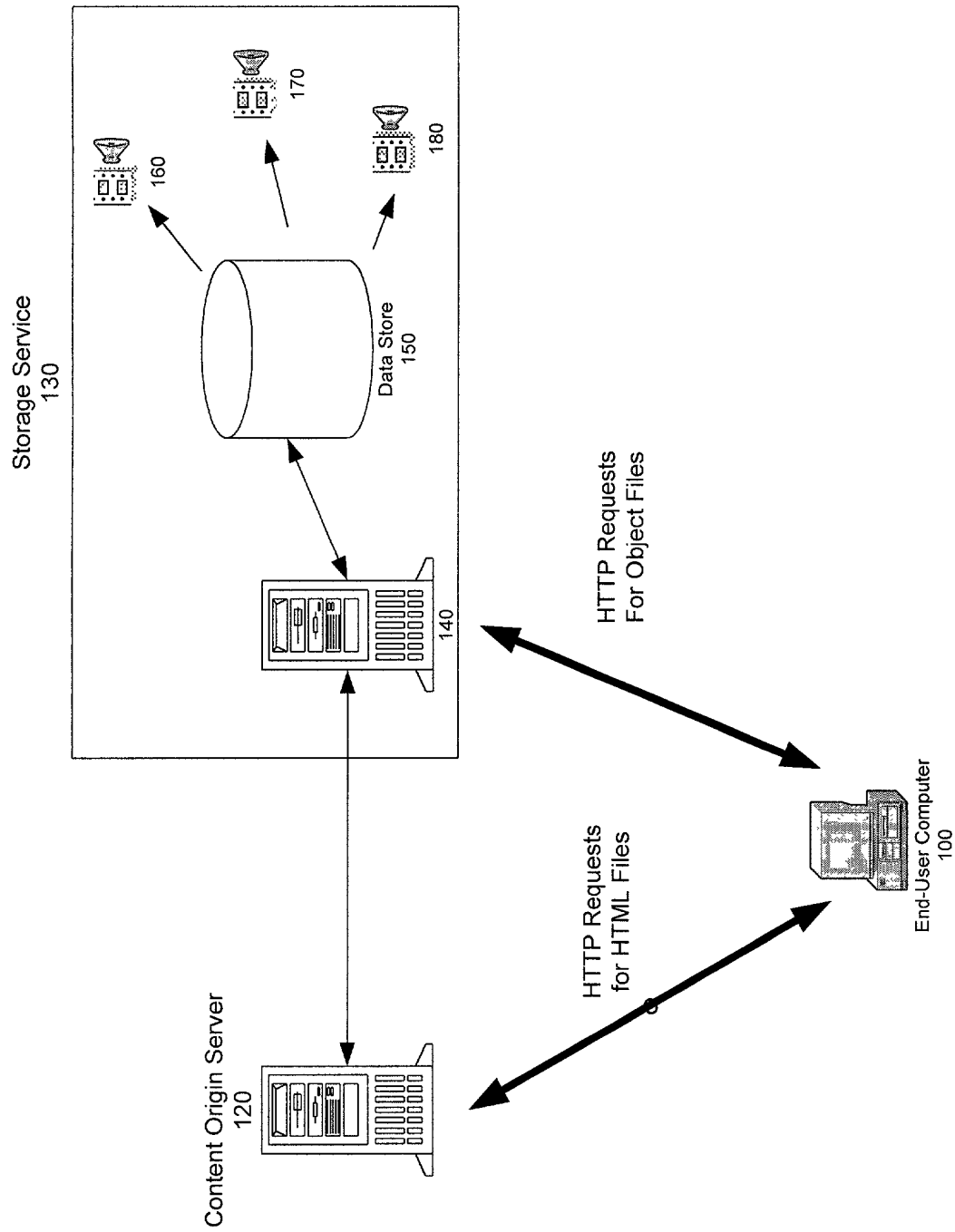
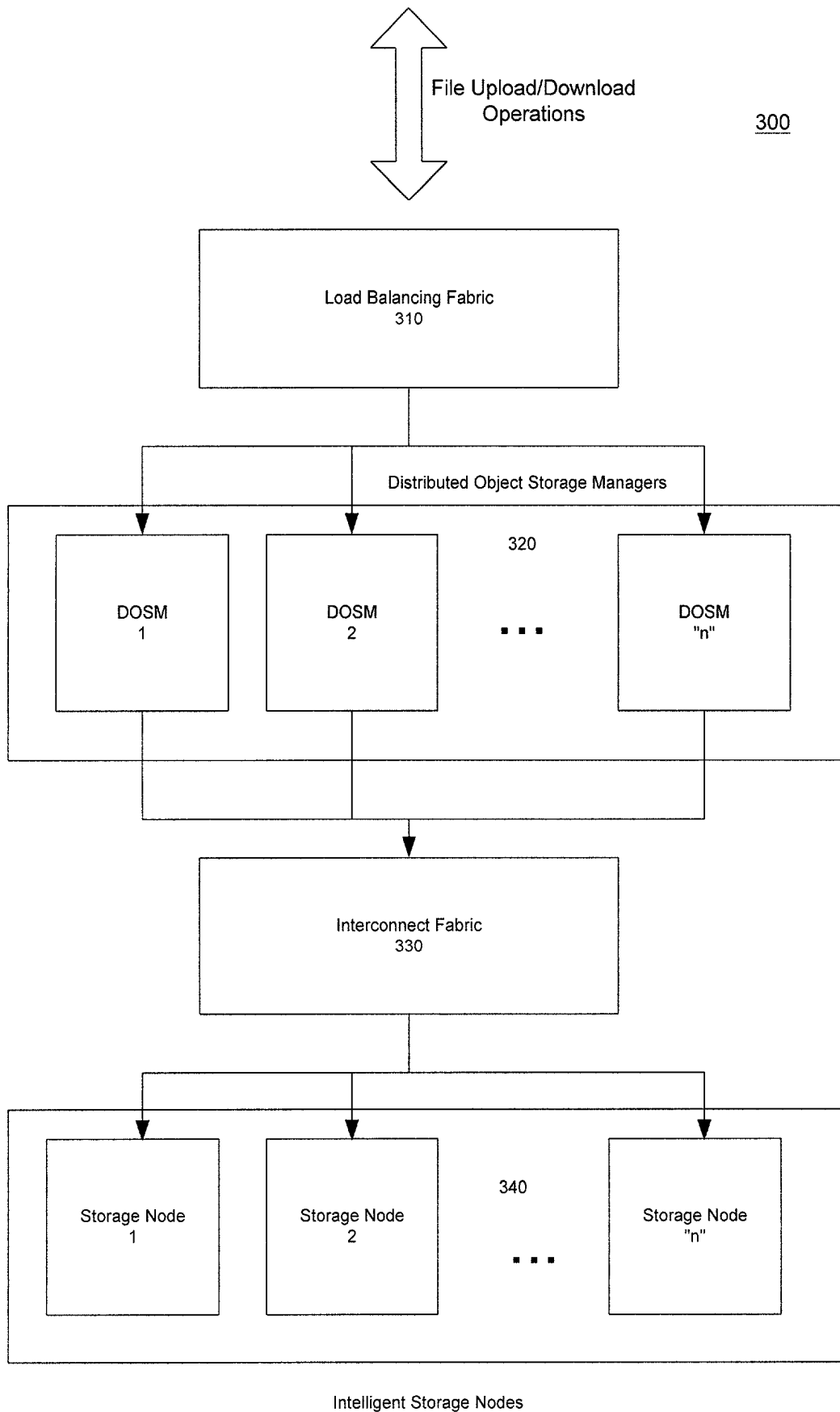
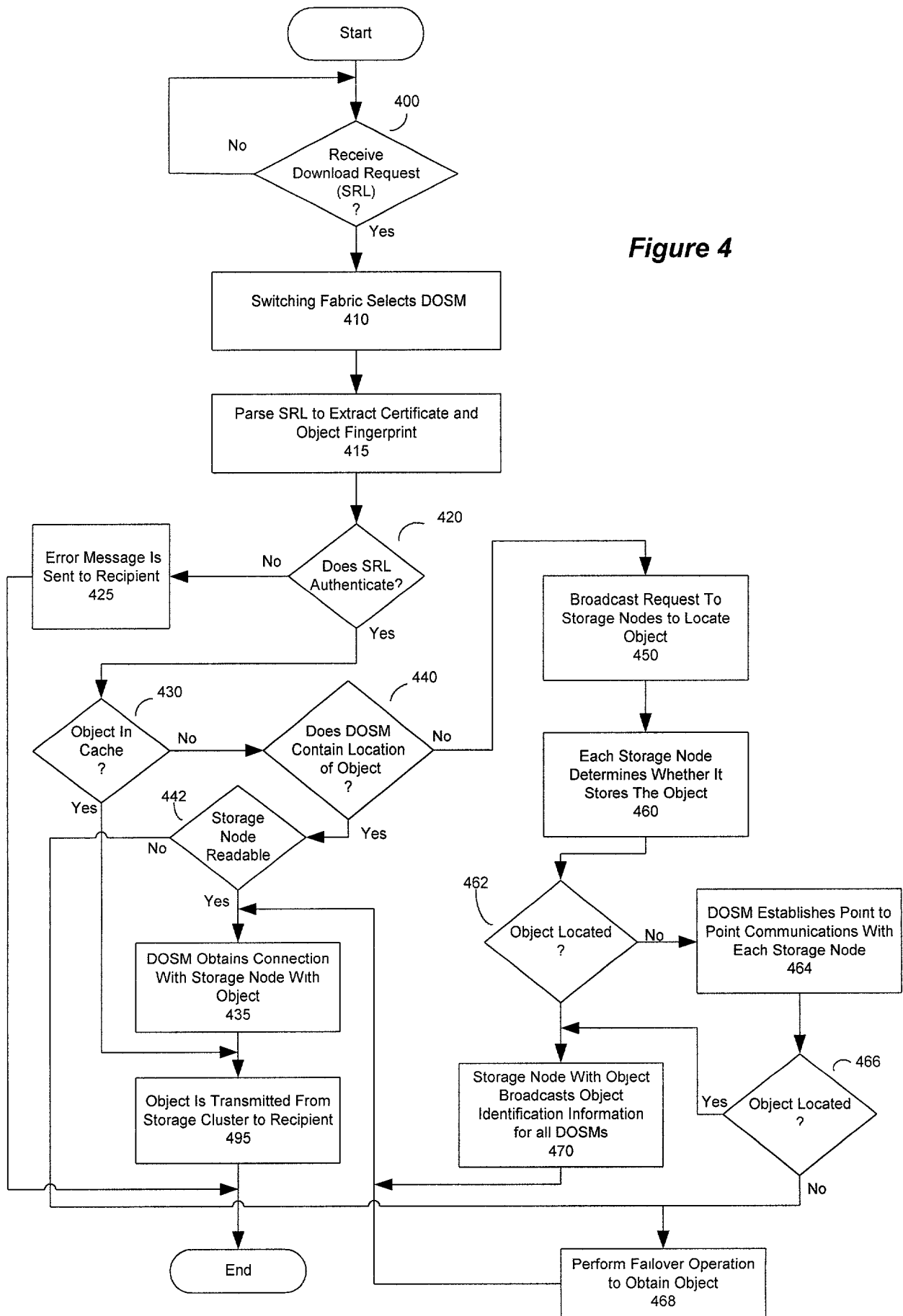


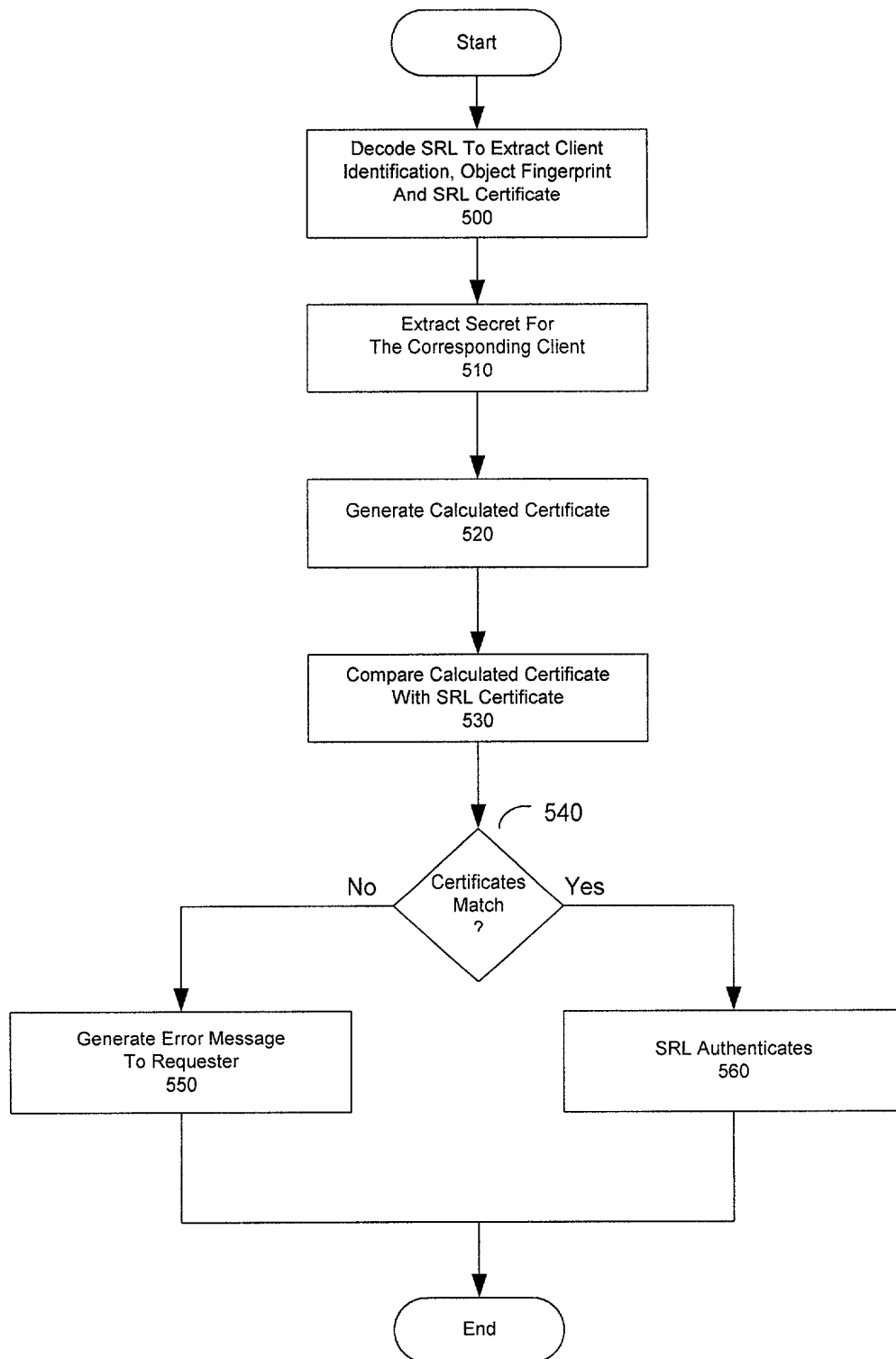
Figure 2



**Figure 3**

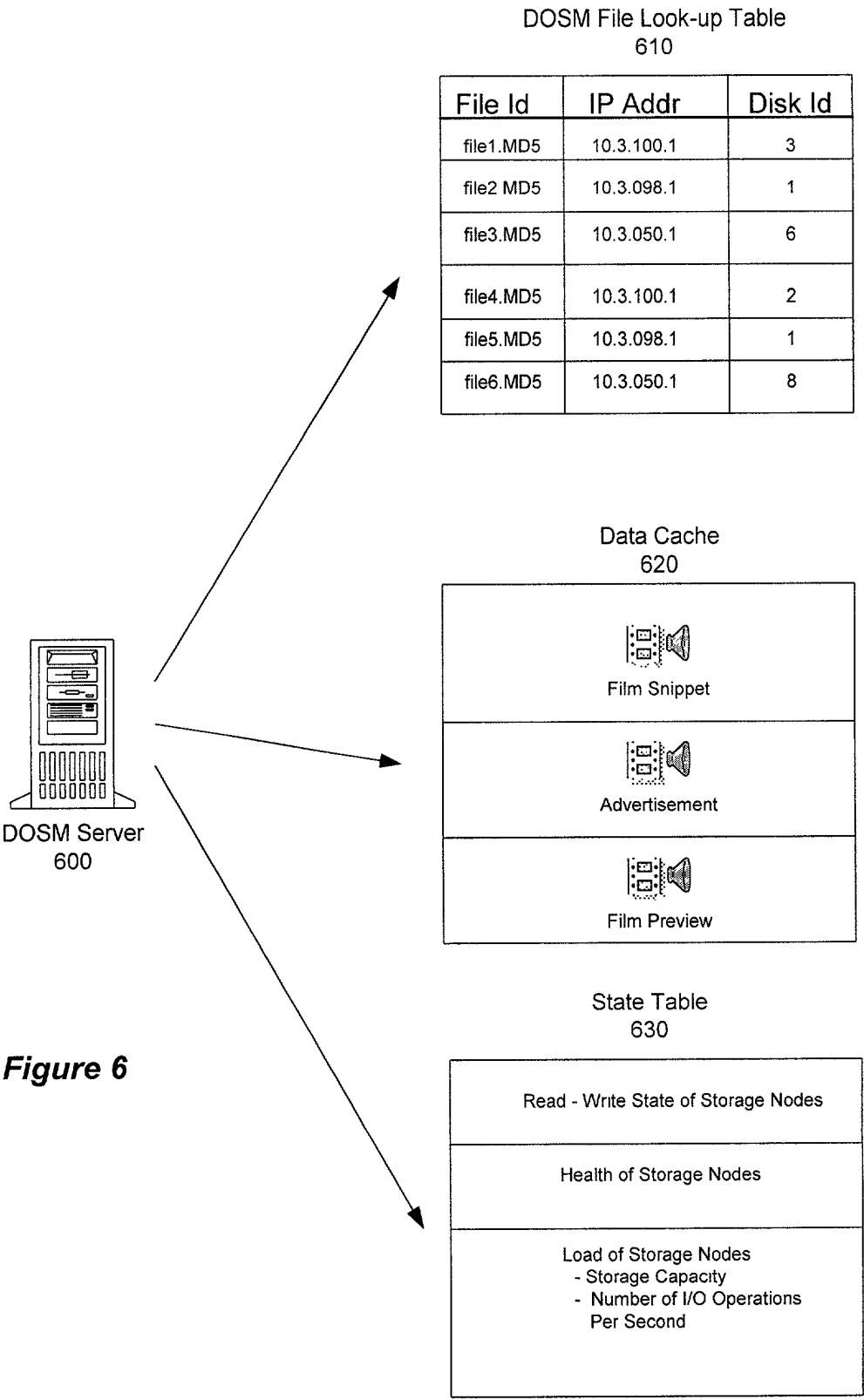


**Figure 4**



**Figure 5**

Figure 6 is a block diagram of a DOSM Server 600. The server is connected to three components: a DOSM File Look-up Table 610, a Data Cache 620, and a State Table 630. The File Look-up Table 610 is a table with three columns: File Id, IP Addr, and Disk Id. The Data Cache 620 is a container for three types of media: Film Snippet, Advertisement, and Film Preview. The State Table 630 is a table with three rows: Read - Write State of Storage Nodes, Health of Storage Nodes, and Load of Storage Nodes. The Load of Storage Nodes row contains two sub-rows: Storage Capacity and Number of I/O Operations Per Second.



**Figure 6**

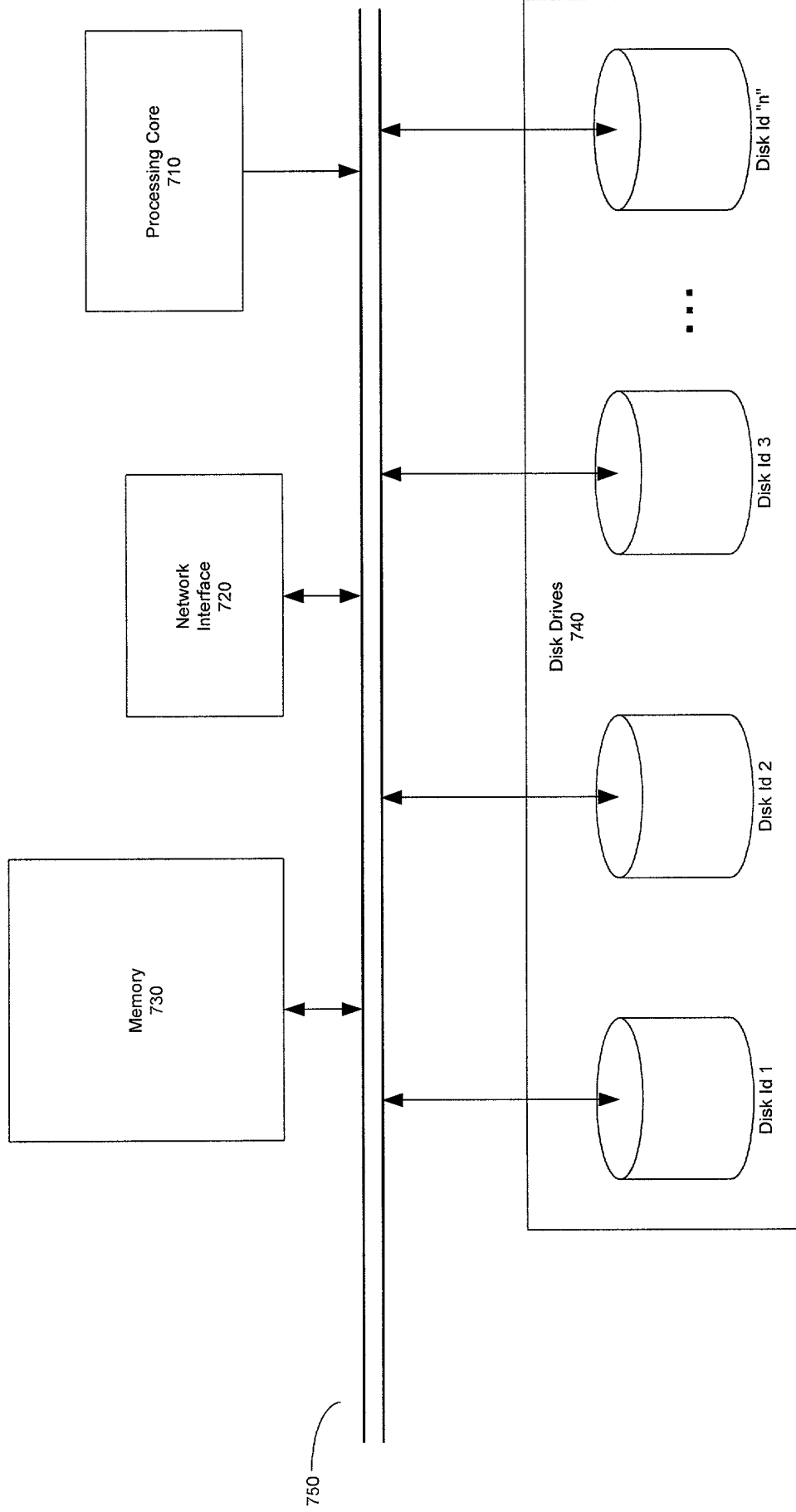
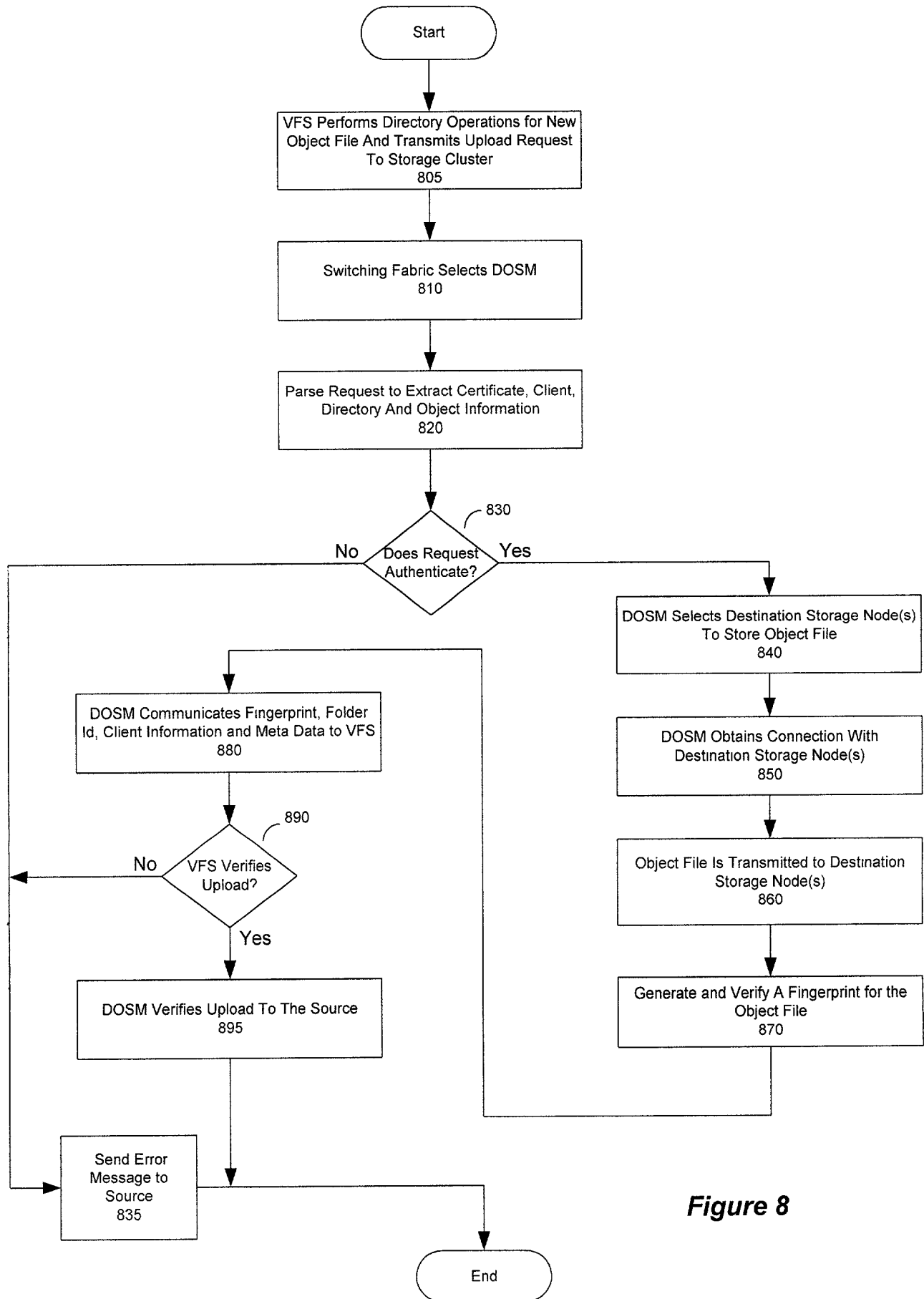
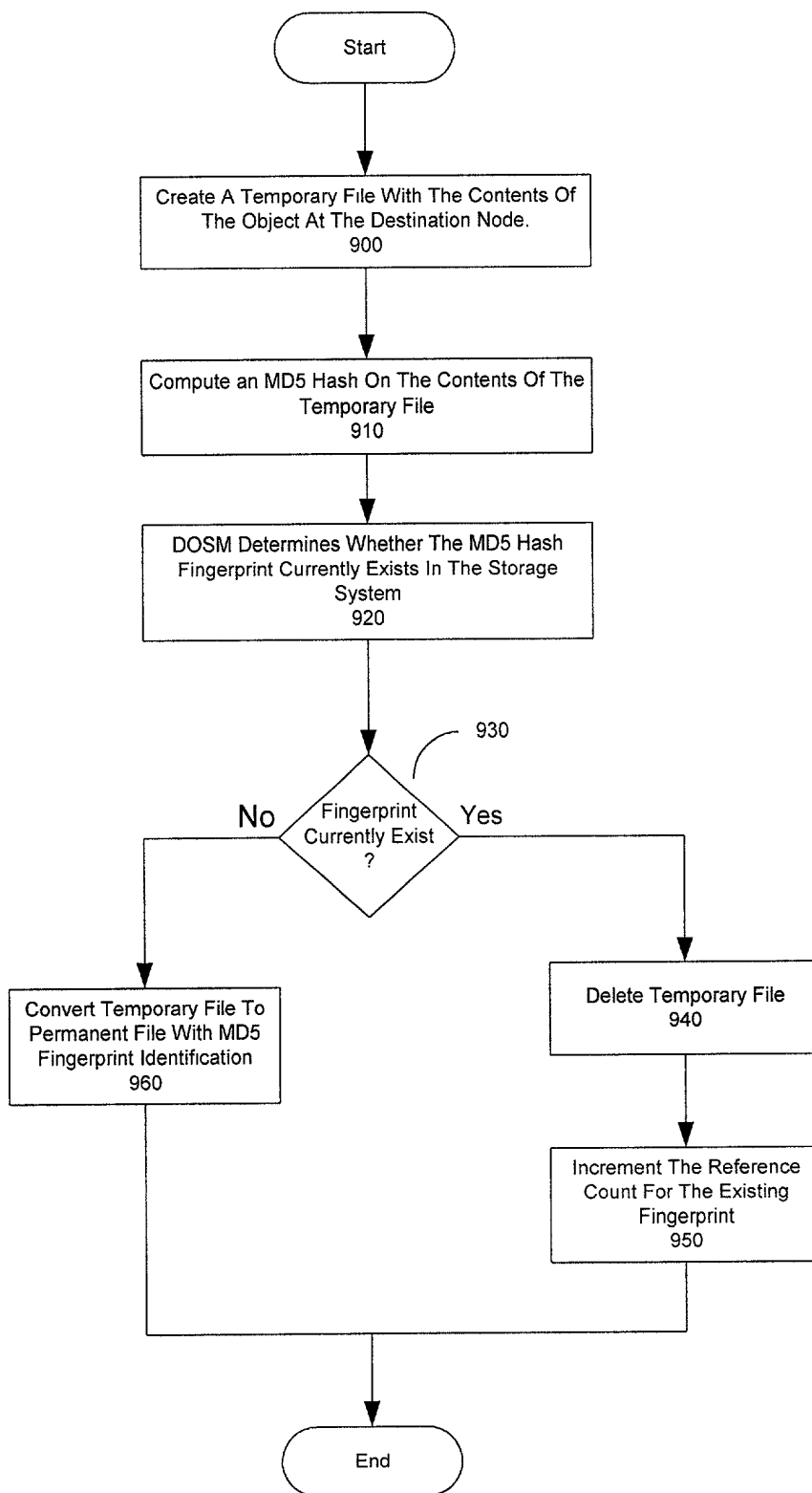


Figure 7



**Figure 8**





**Figure 9**

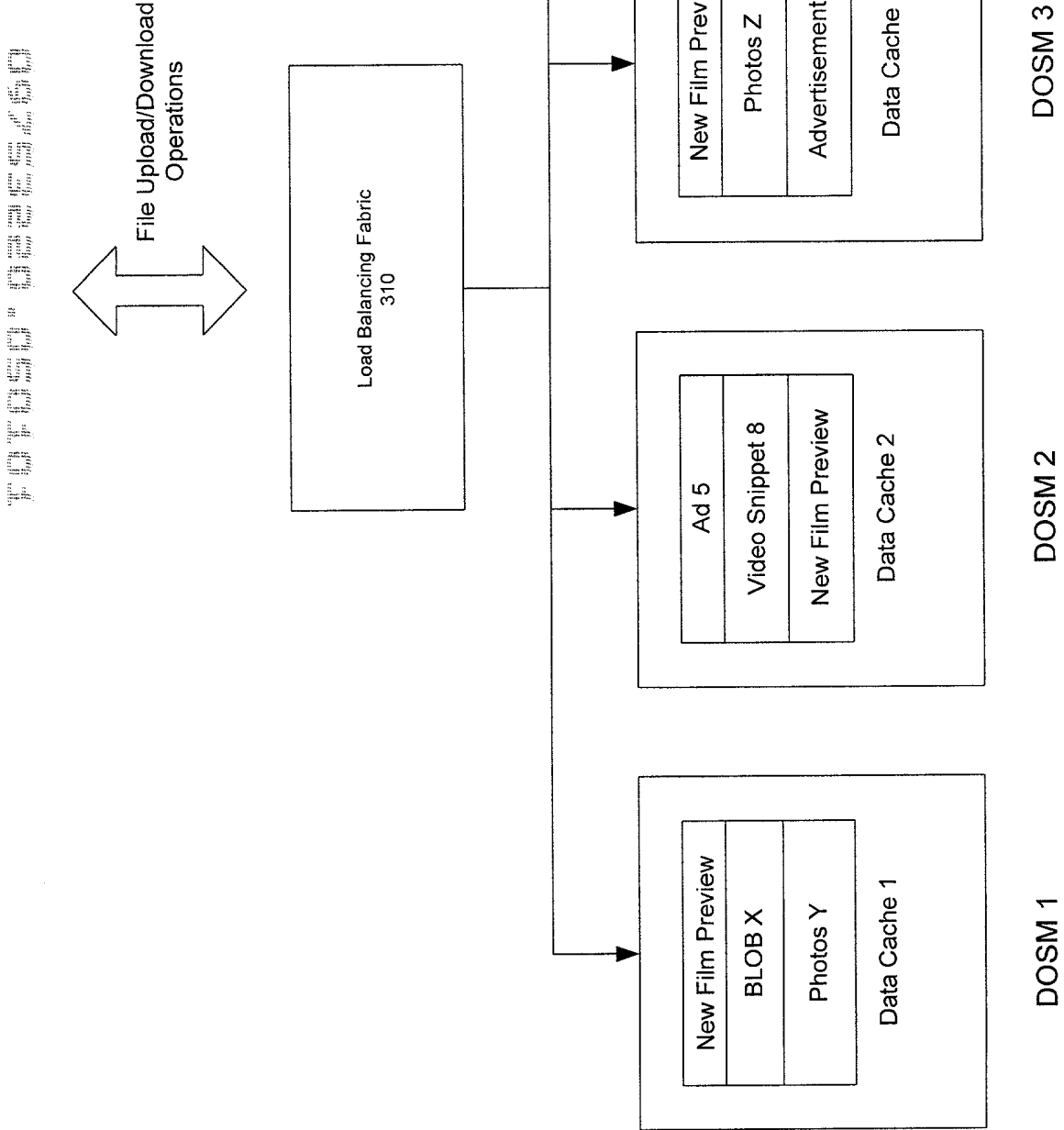
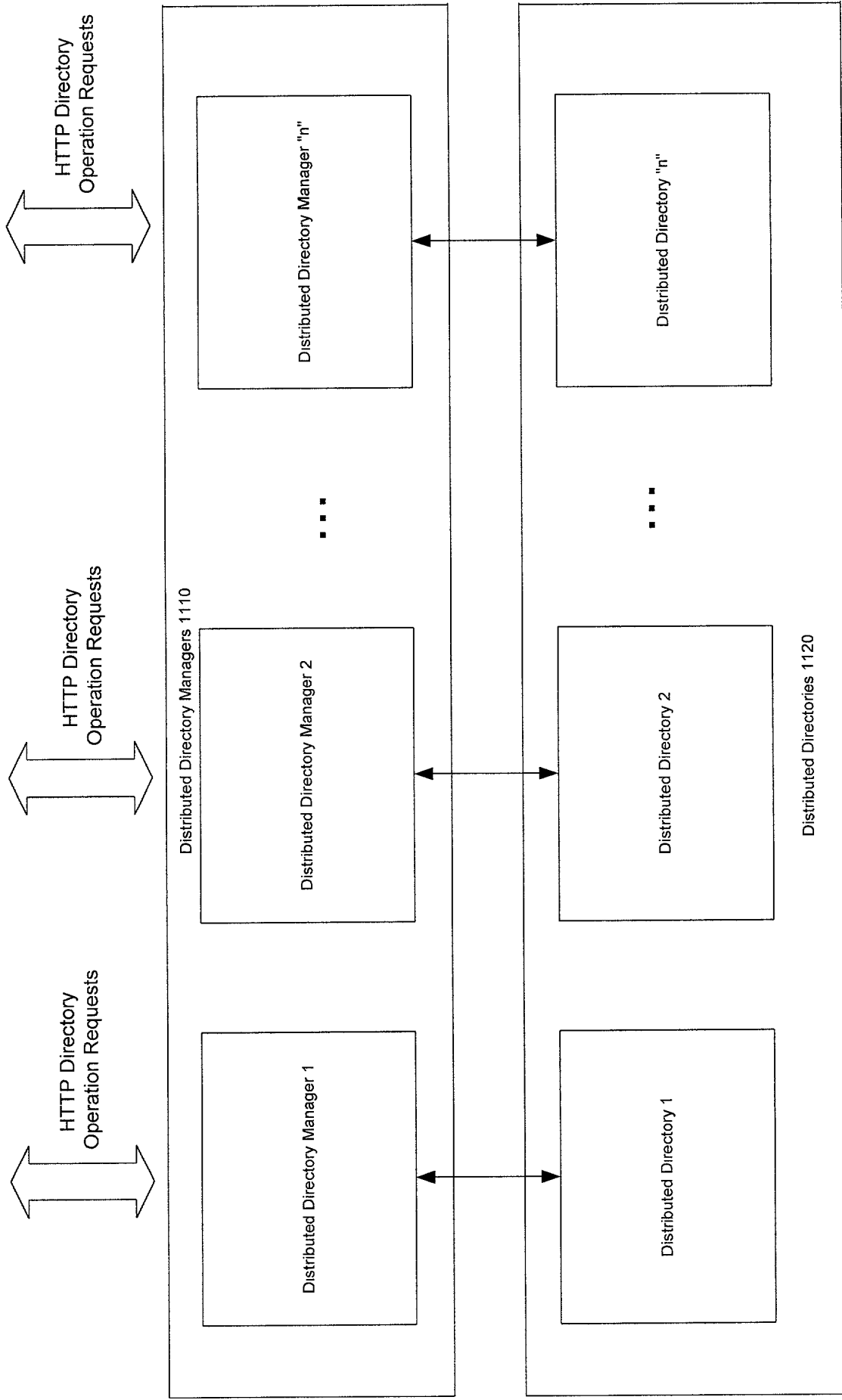


Figure 10



**Figure 11**

Customer Table

	Customer Name	Customer Reserved Fields
	Customer A	[Customer stores data ...]
	Customer B	[Customer stores data ...]
	Customer C	[Customer stores data ...]
	Customer D	[Customer stores data ...]

1200

Folder Table

Customer Id	Folder Id	Folder Parent Id	Metadata
3	2	-	[Reserved]
3	100	2	[Reserved]
3	251	2	[Reserved]
3	166	251	[Reserved]

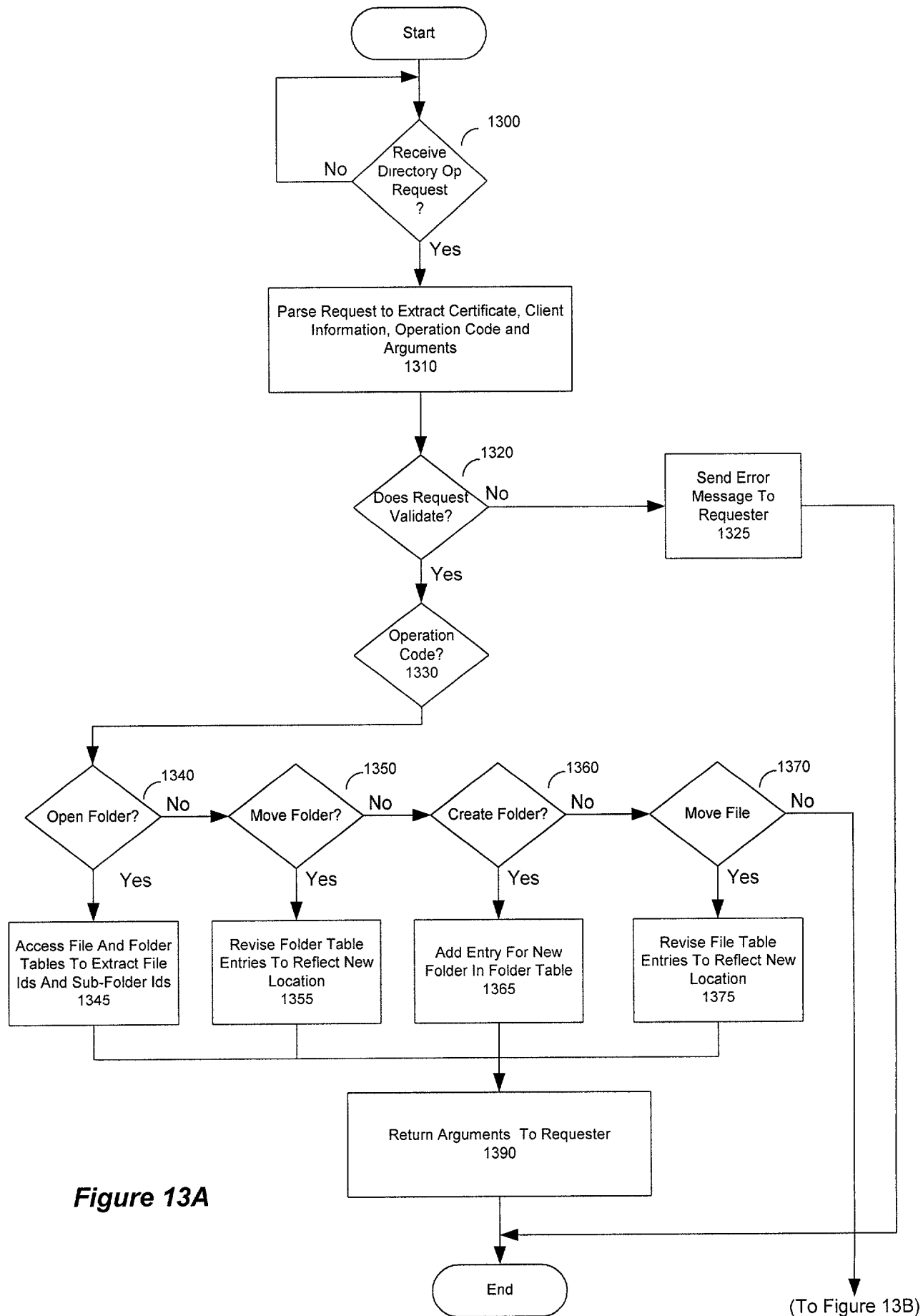
1210

File Table

Customer Id	File Handle	Folder Id	Folder Parent Id	Metadata
3	52.MD5	100	2	[Reserved]
3	55.MD5	100	2	[Reserved]
3	99.MD5	166	251	[Reserved]
3	67.MD5	166	251	[Reserved]

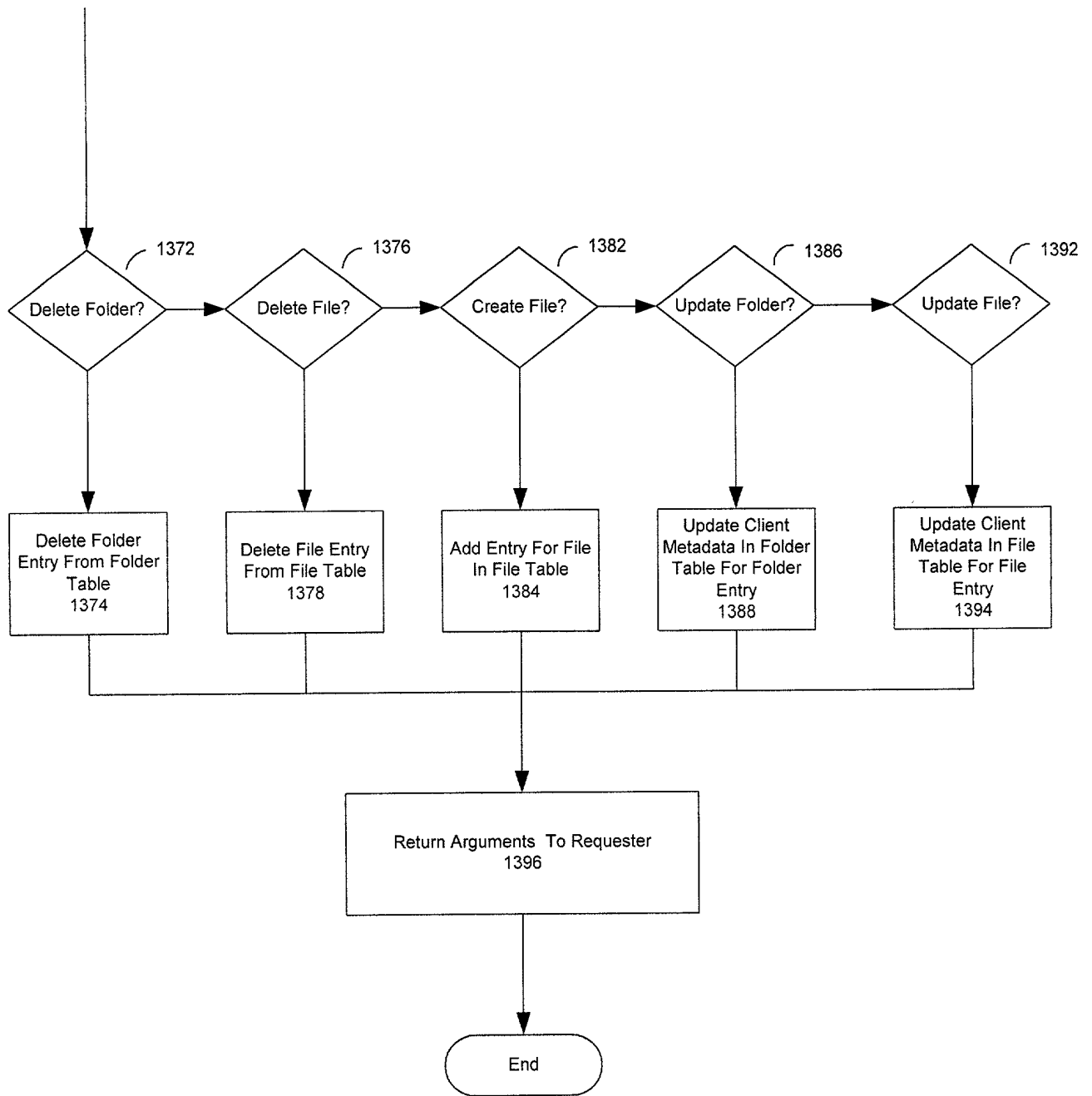
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**Figure 12**

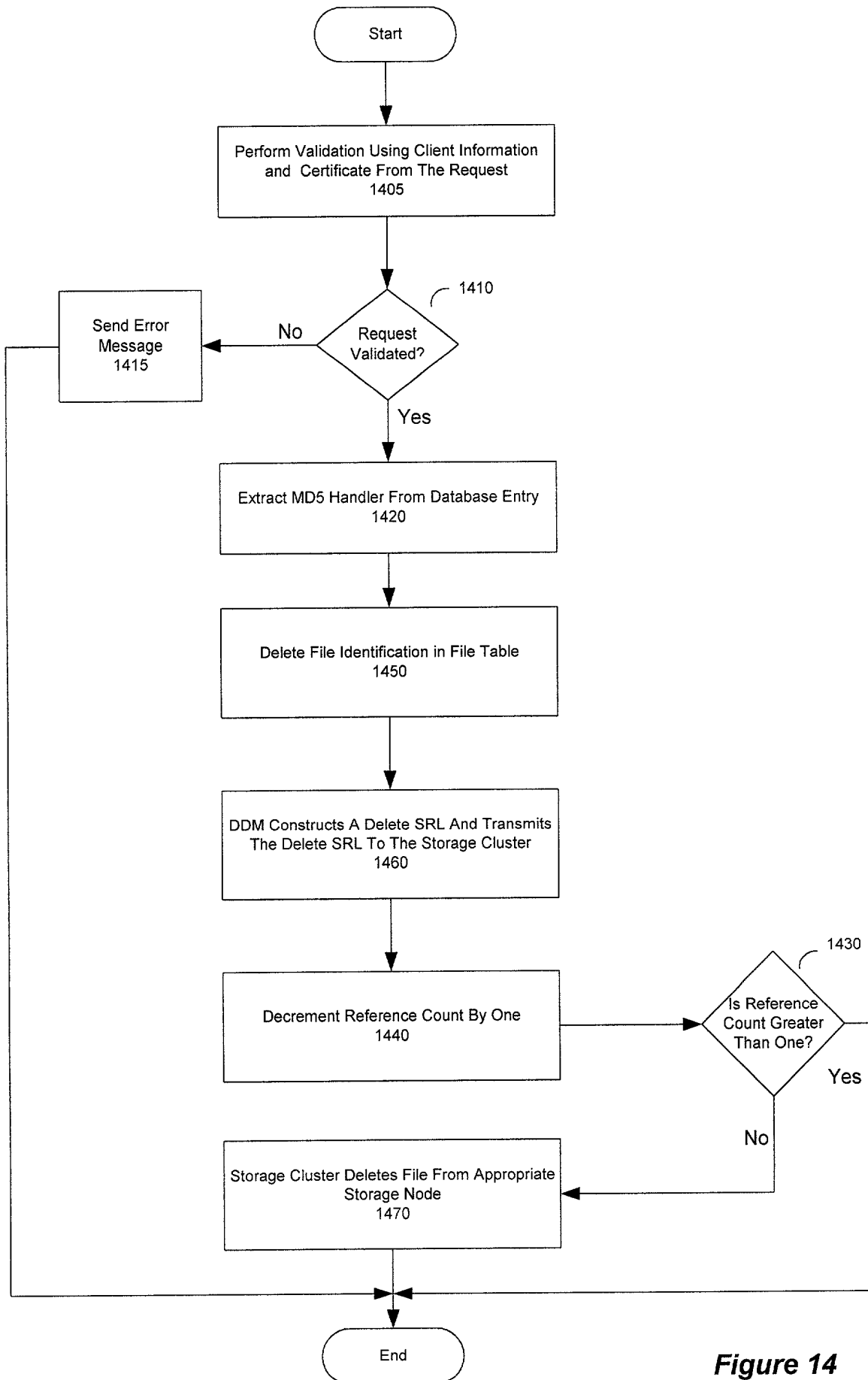


**Figure 13A**

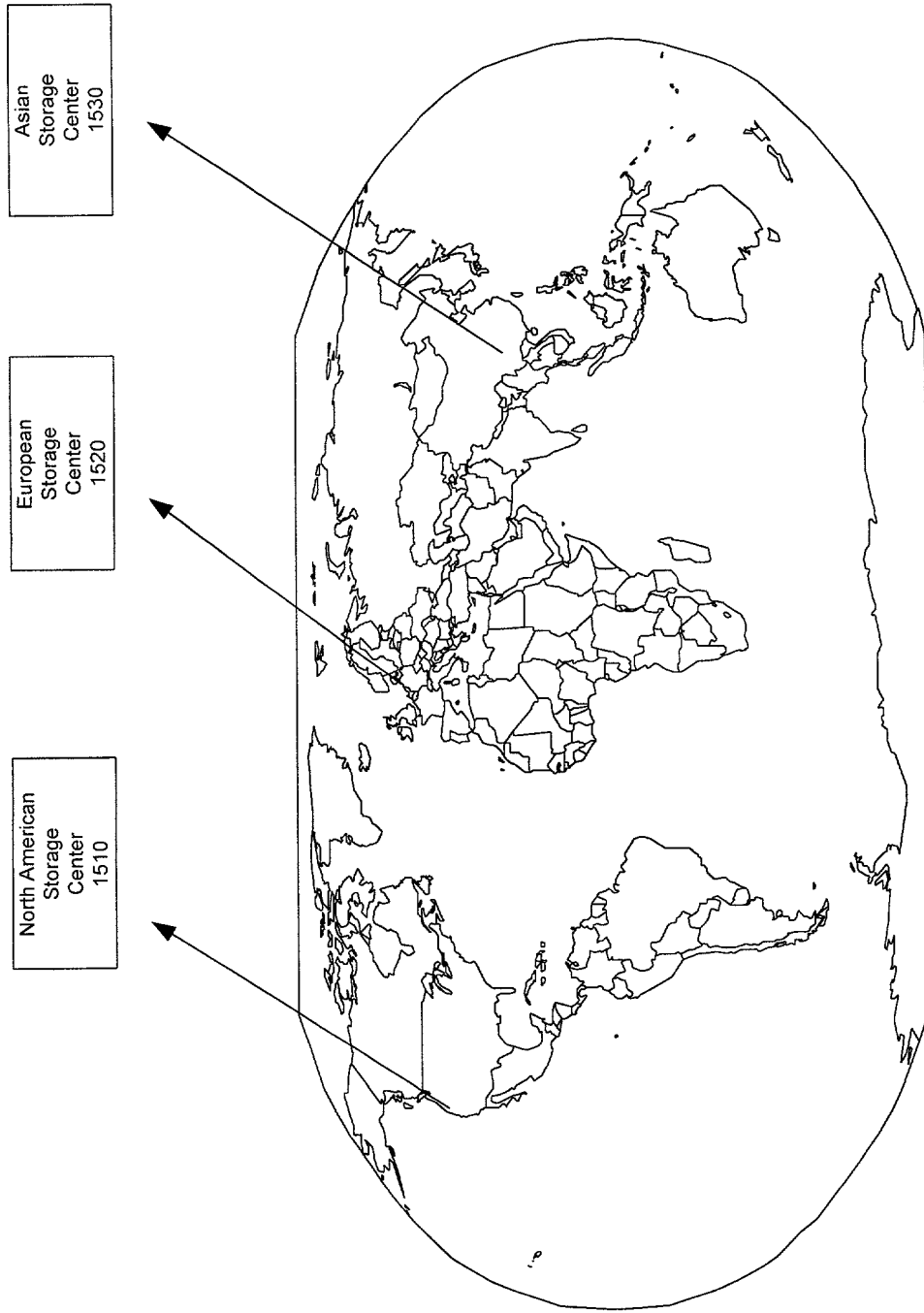
(From Figure 13A)



**Figure 13B**



**Figure 14**



**Figure 15**



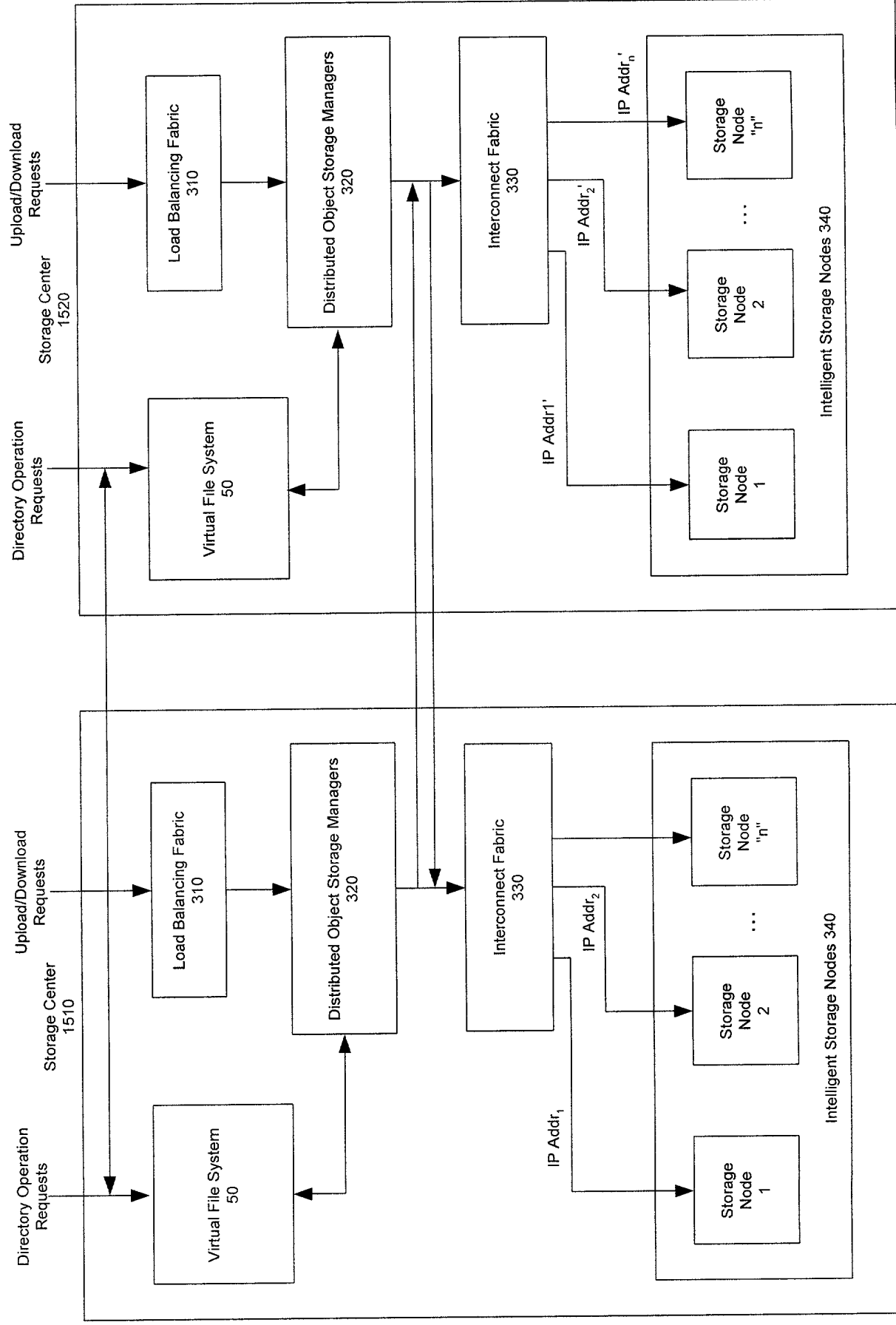


Figure 16

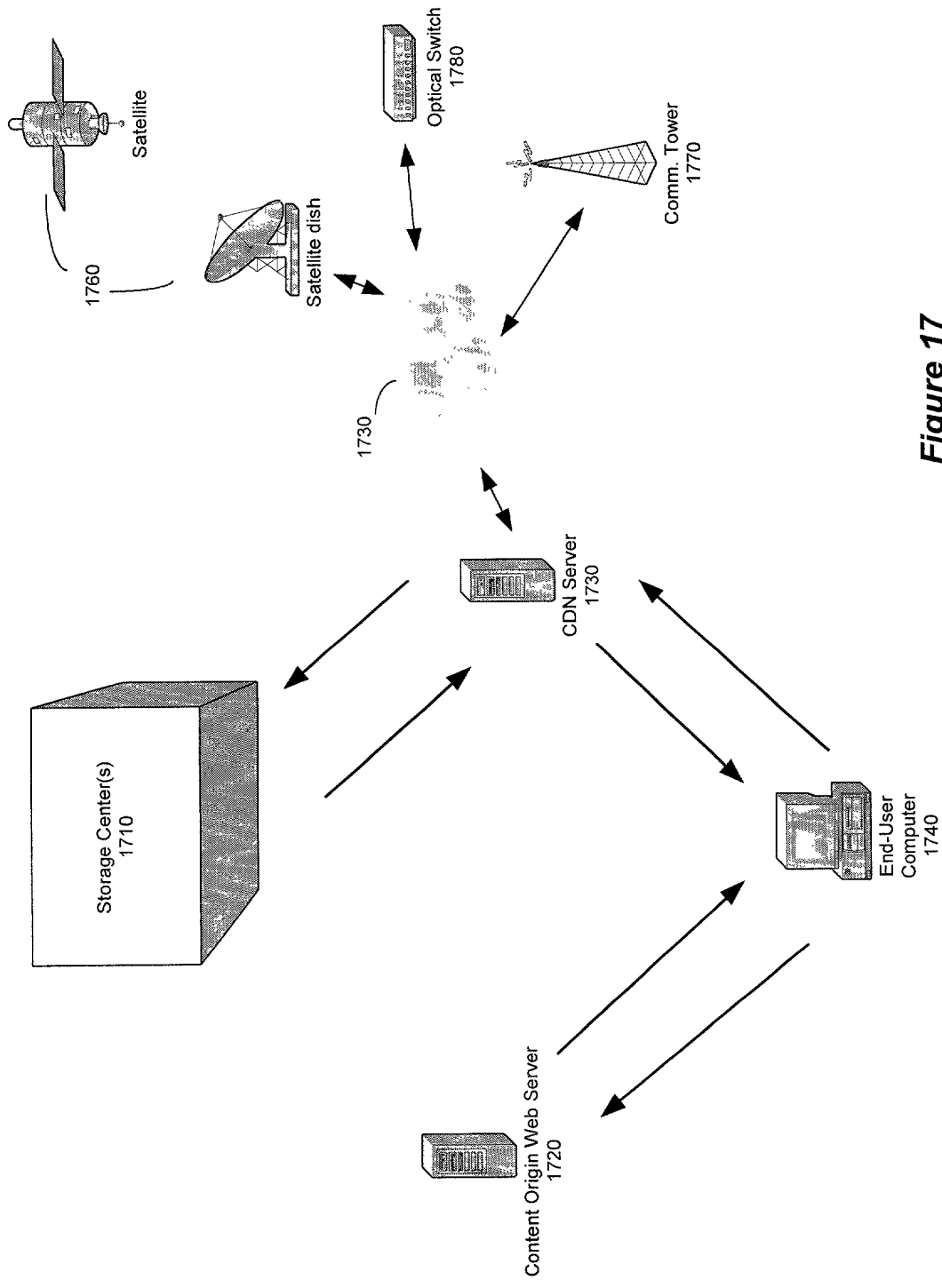
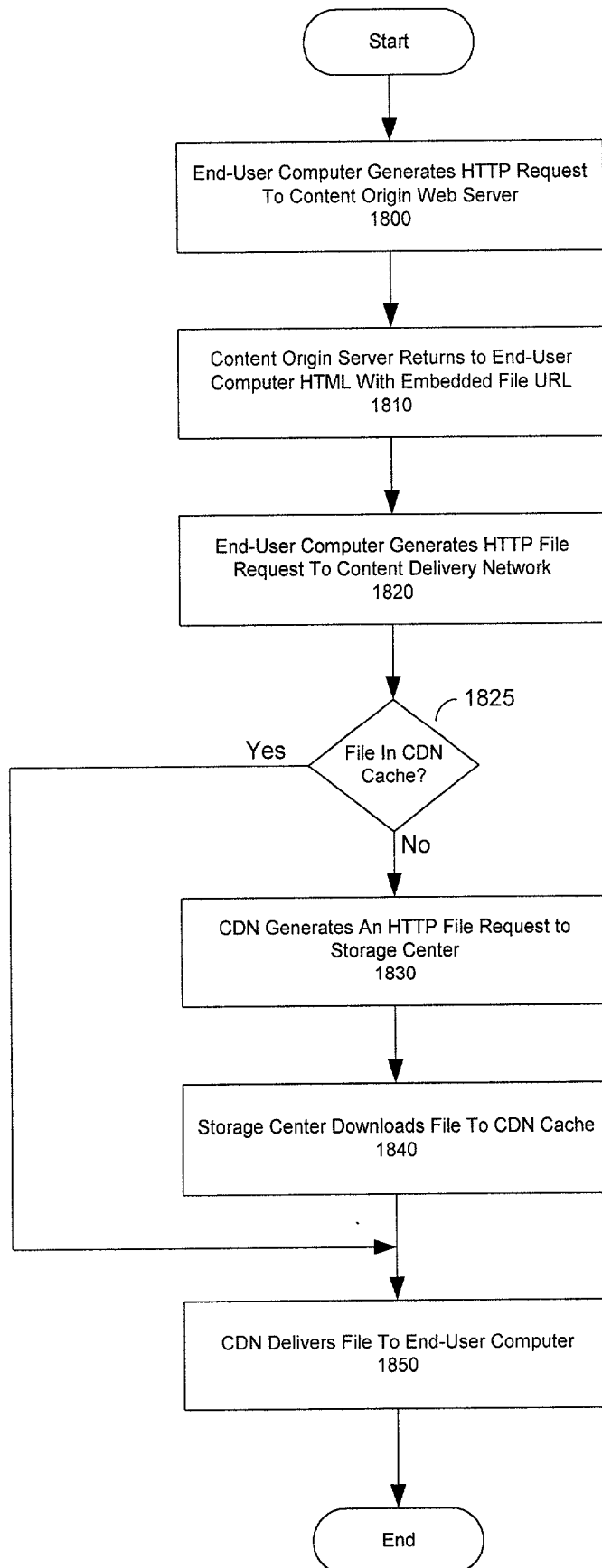
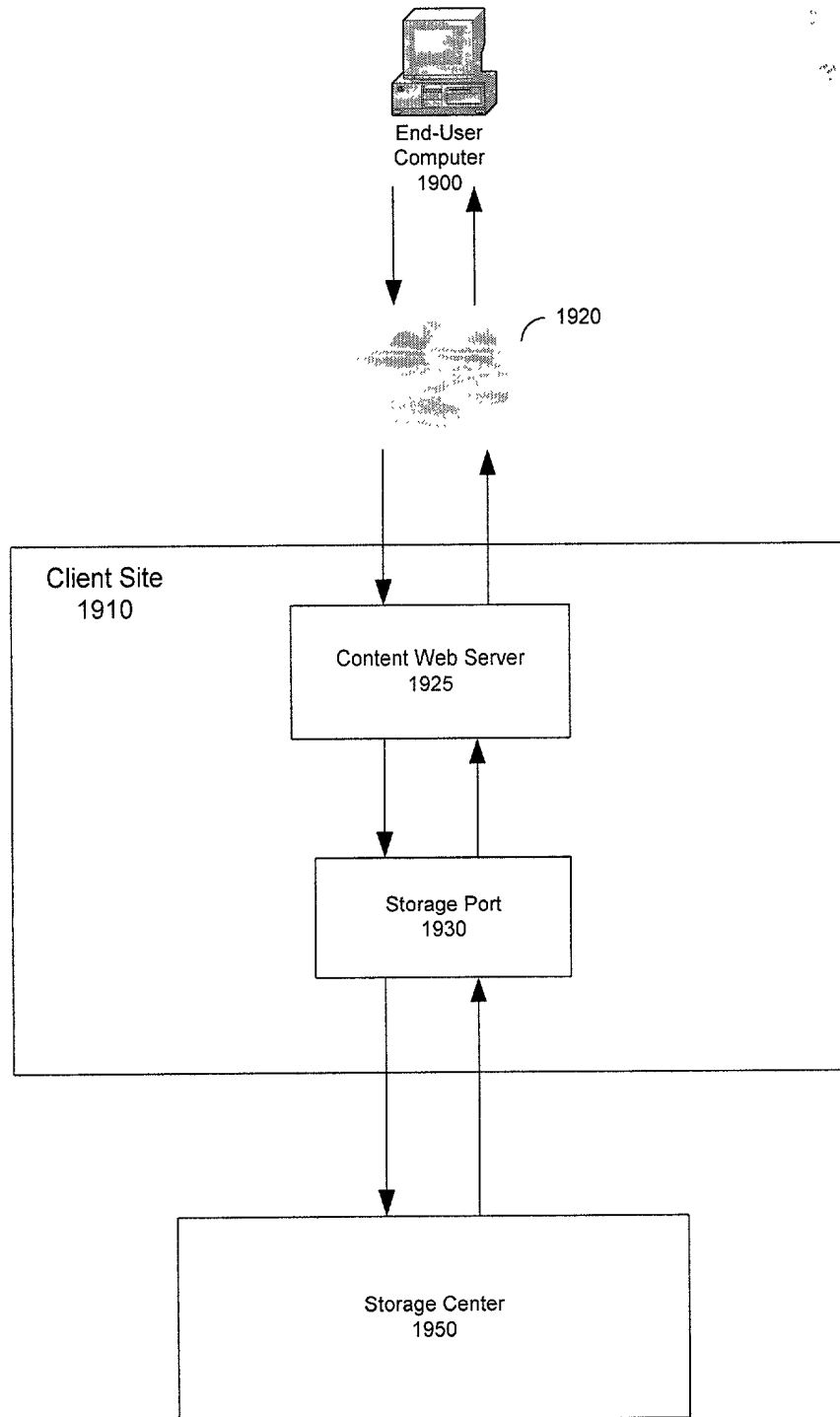


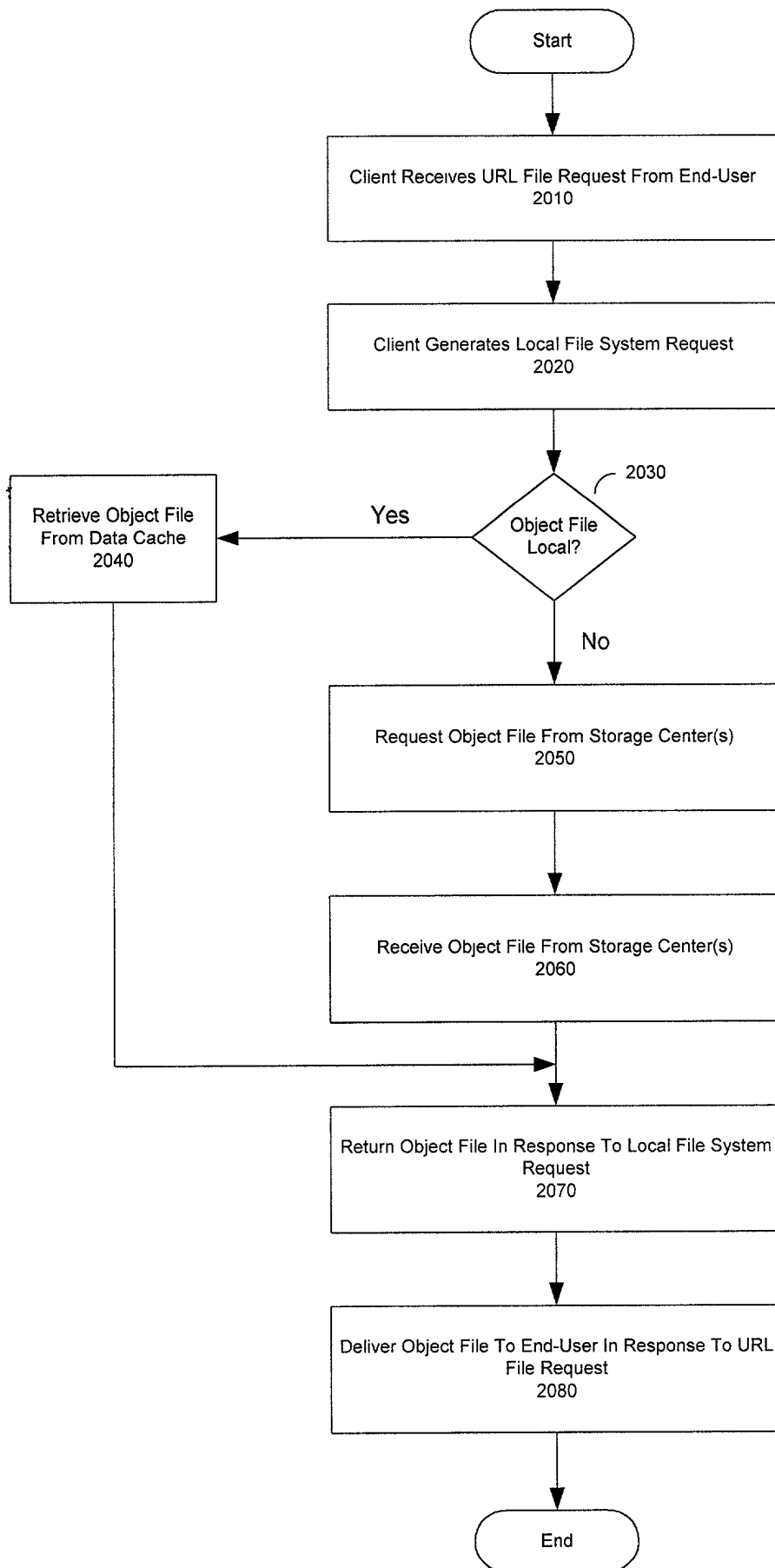
Figure 17



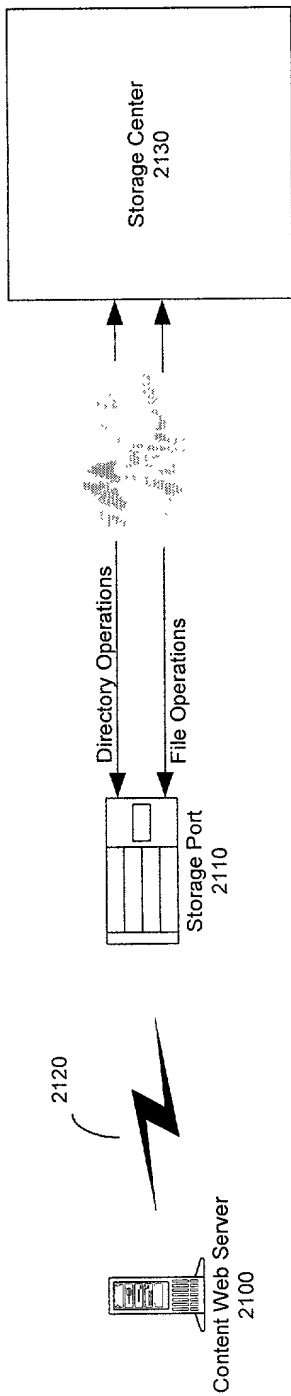
**Figure 18**



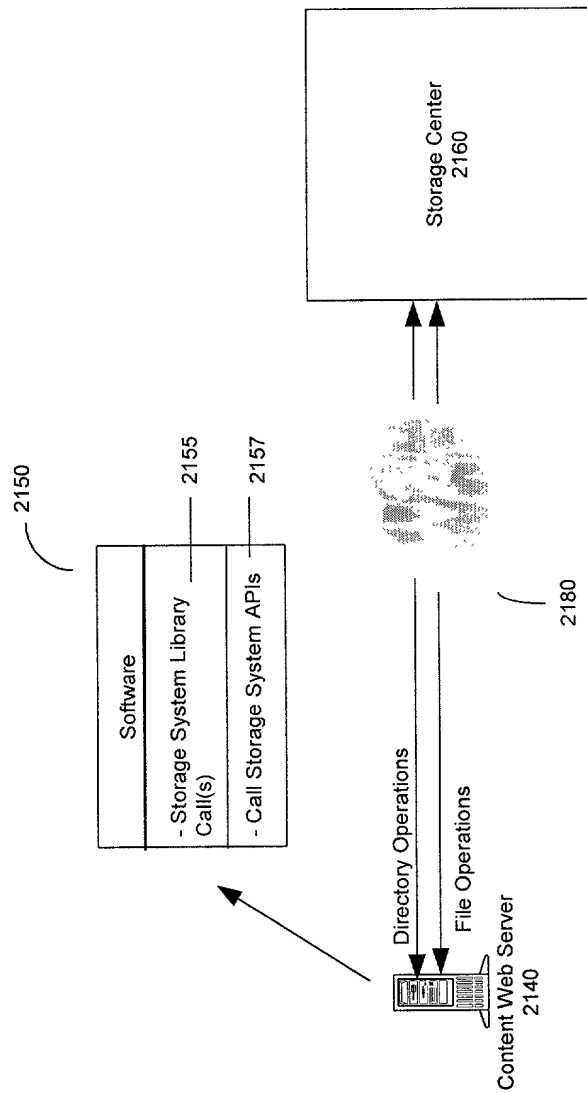
**Figure 19**



**Figure 20**



**Figure 21a**



**Figure 21b**

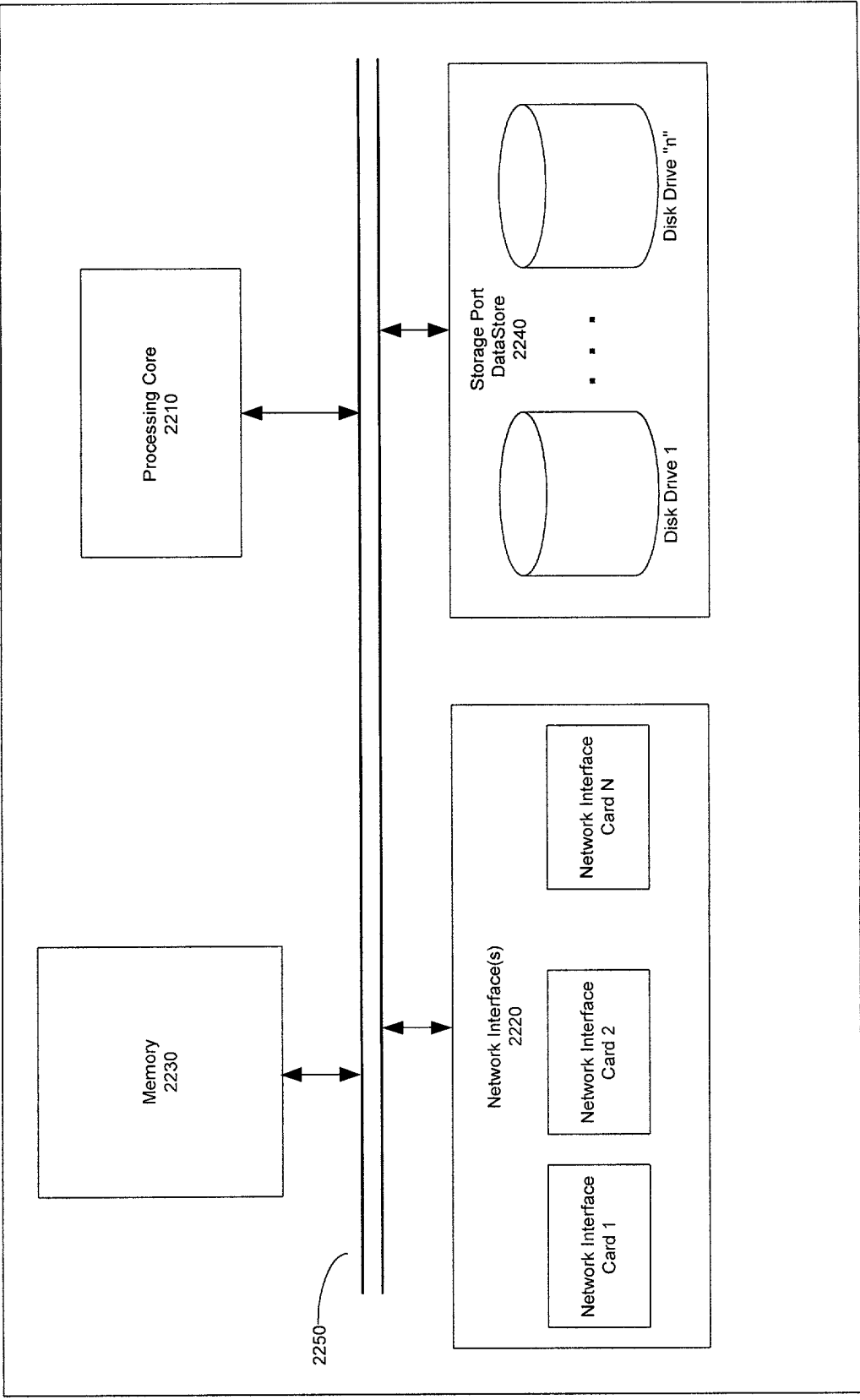
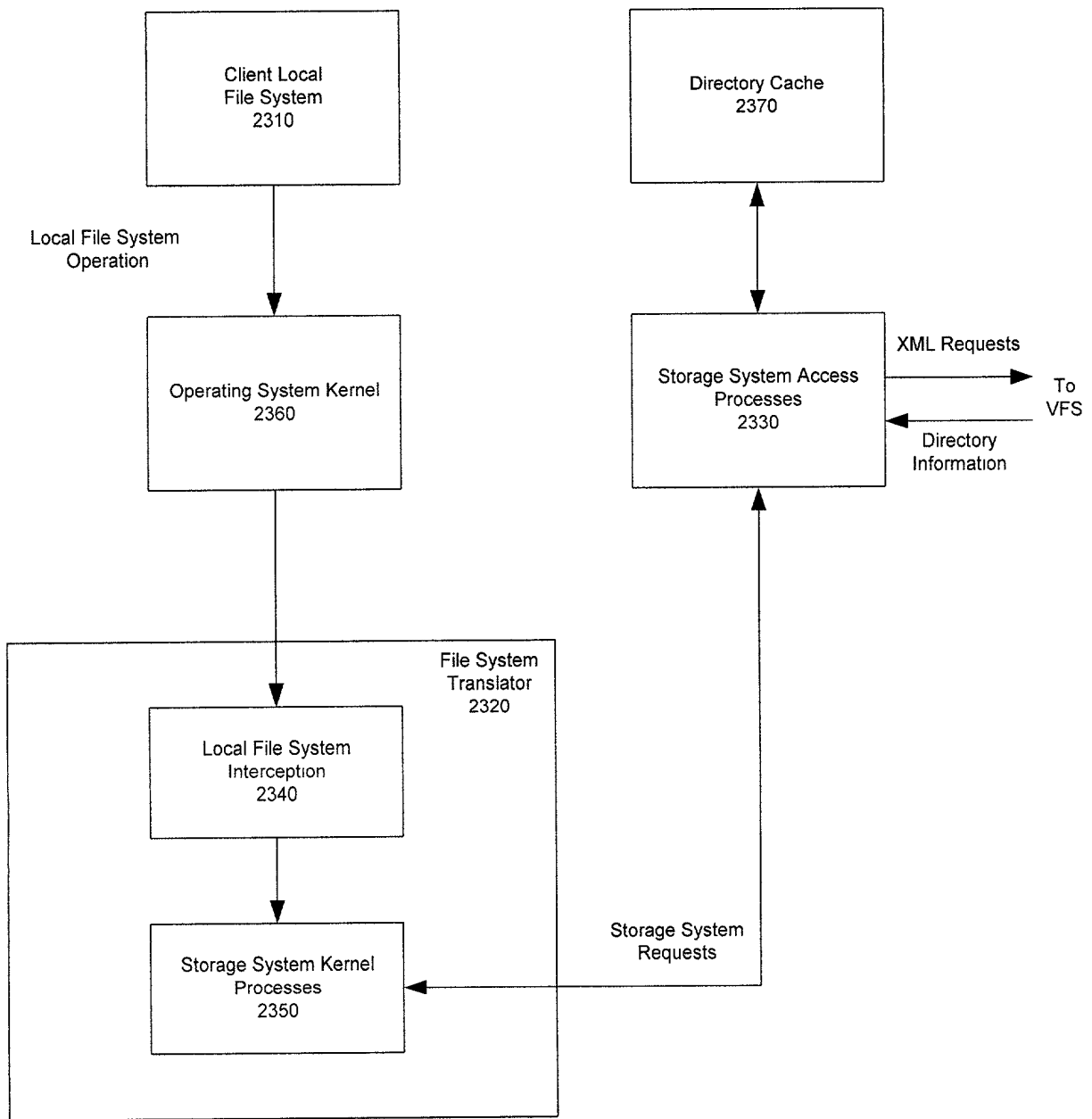


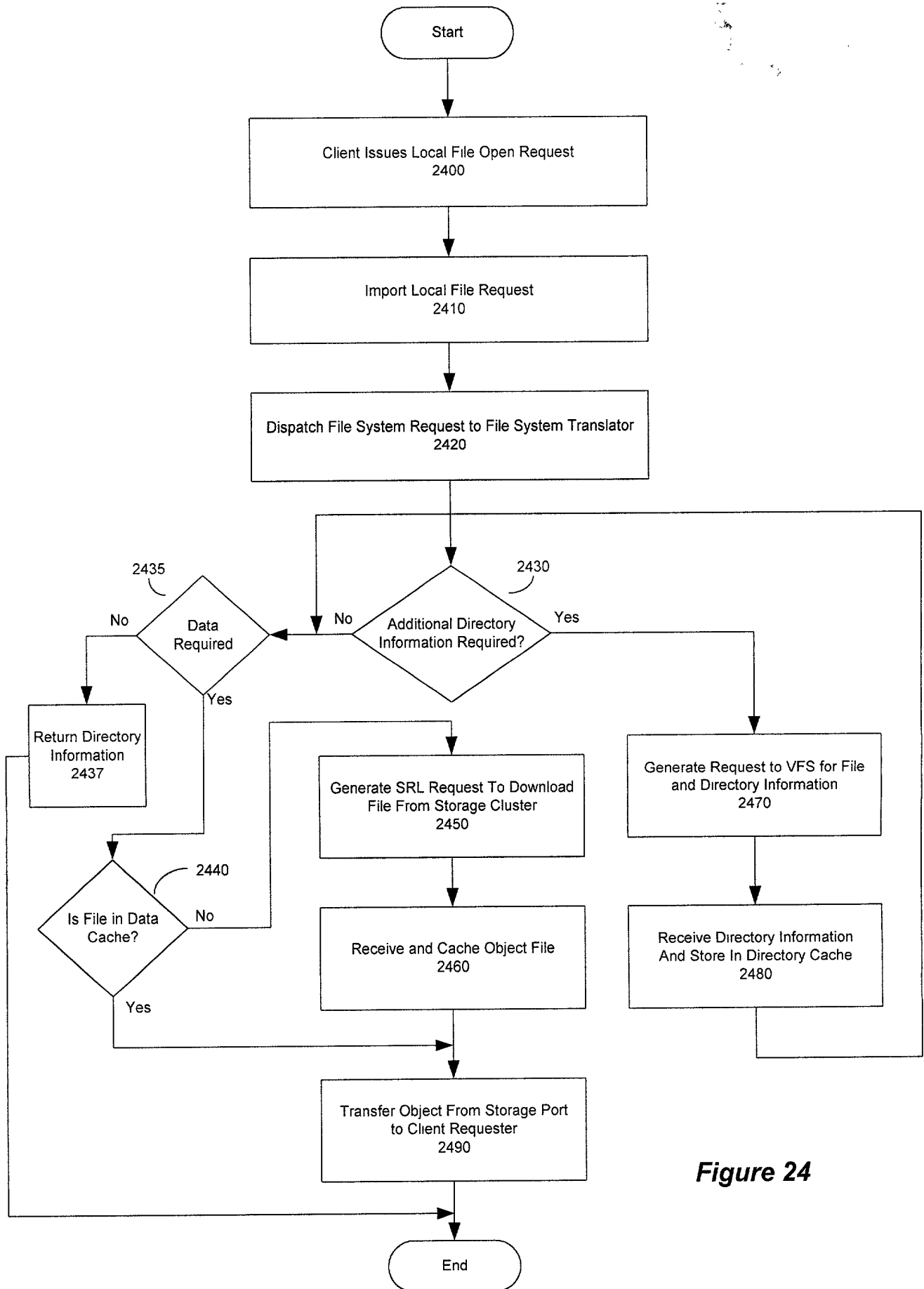
Figure 22

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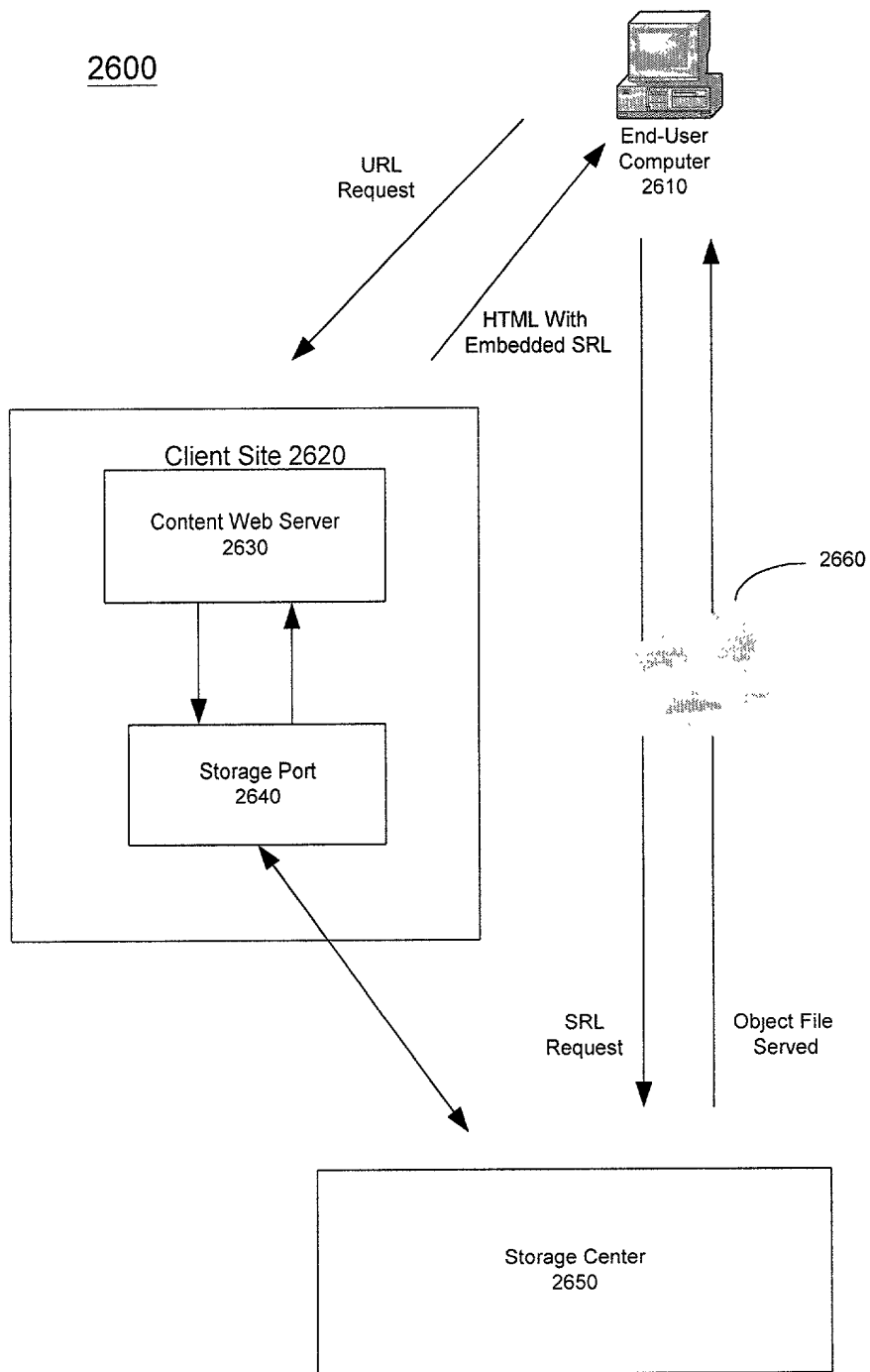


**Figure 23**

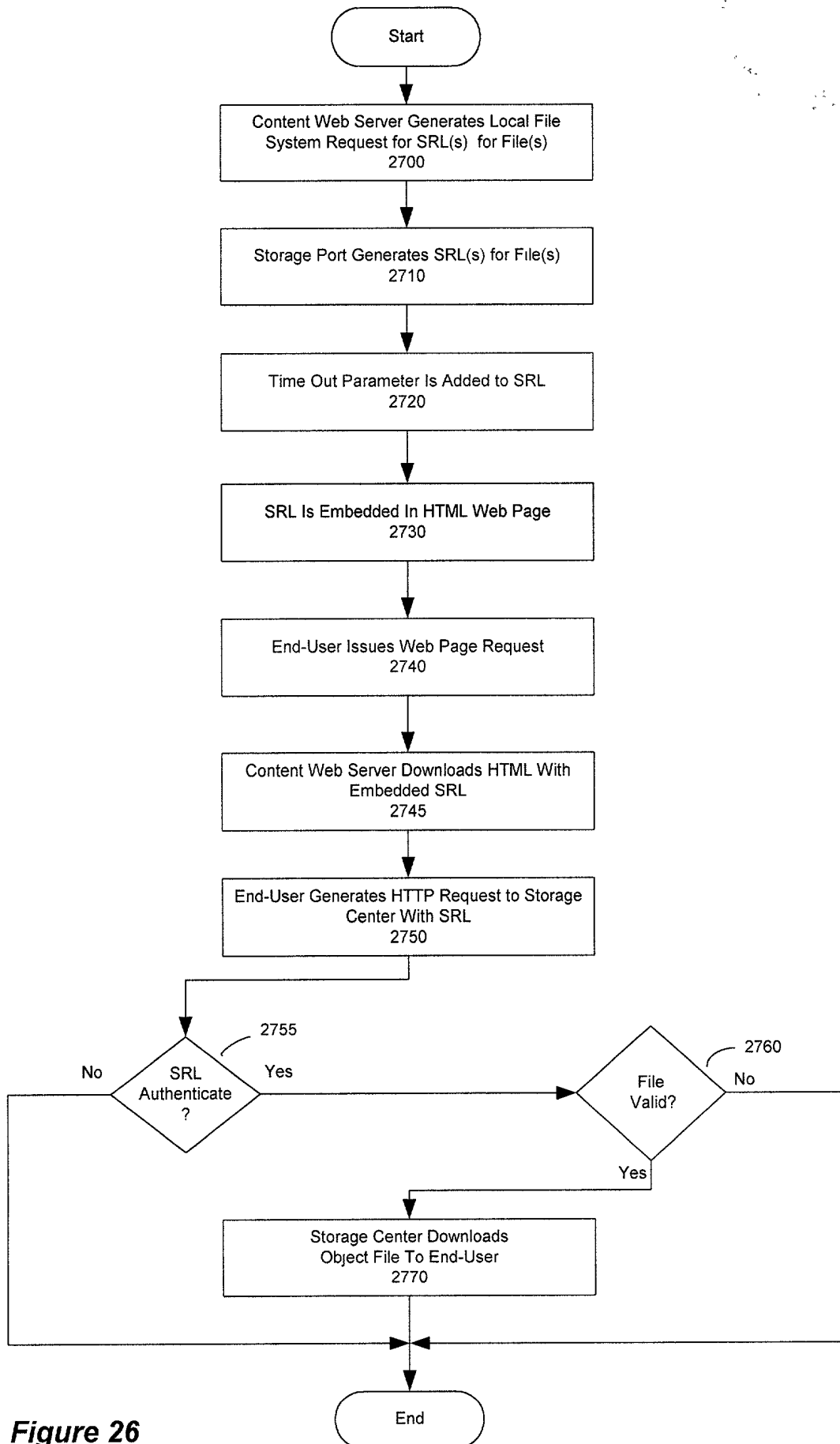




**Figure 24**

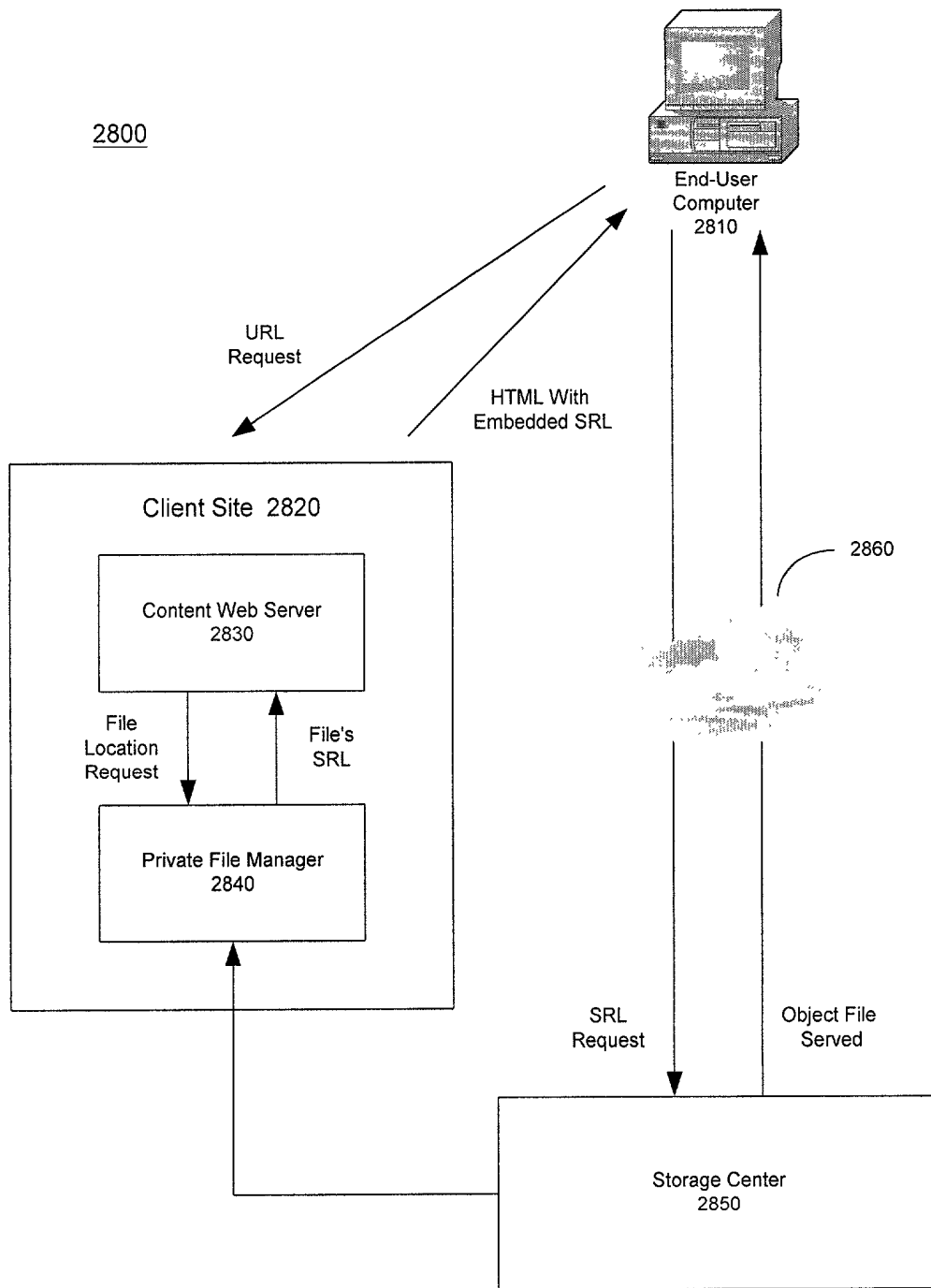


**Figure 25**

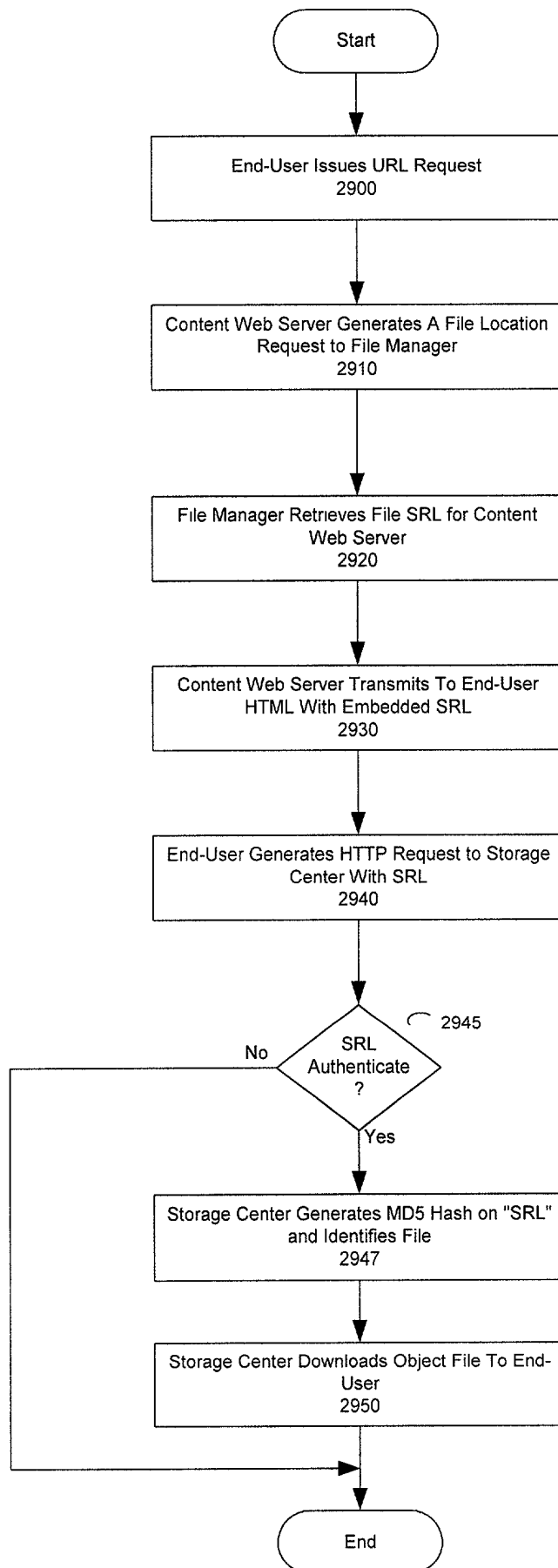


**Figure 26**

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**Figure 27**



**Figure 28**

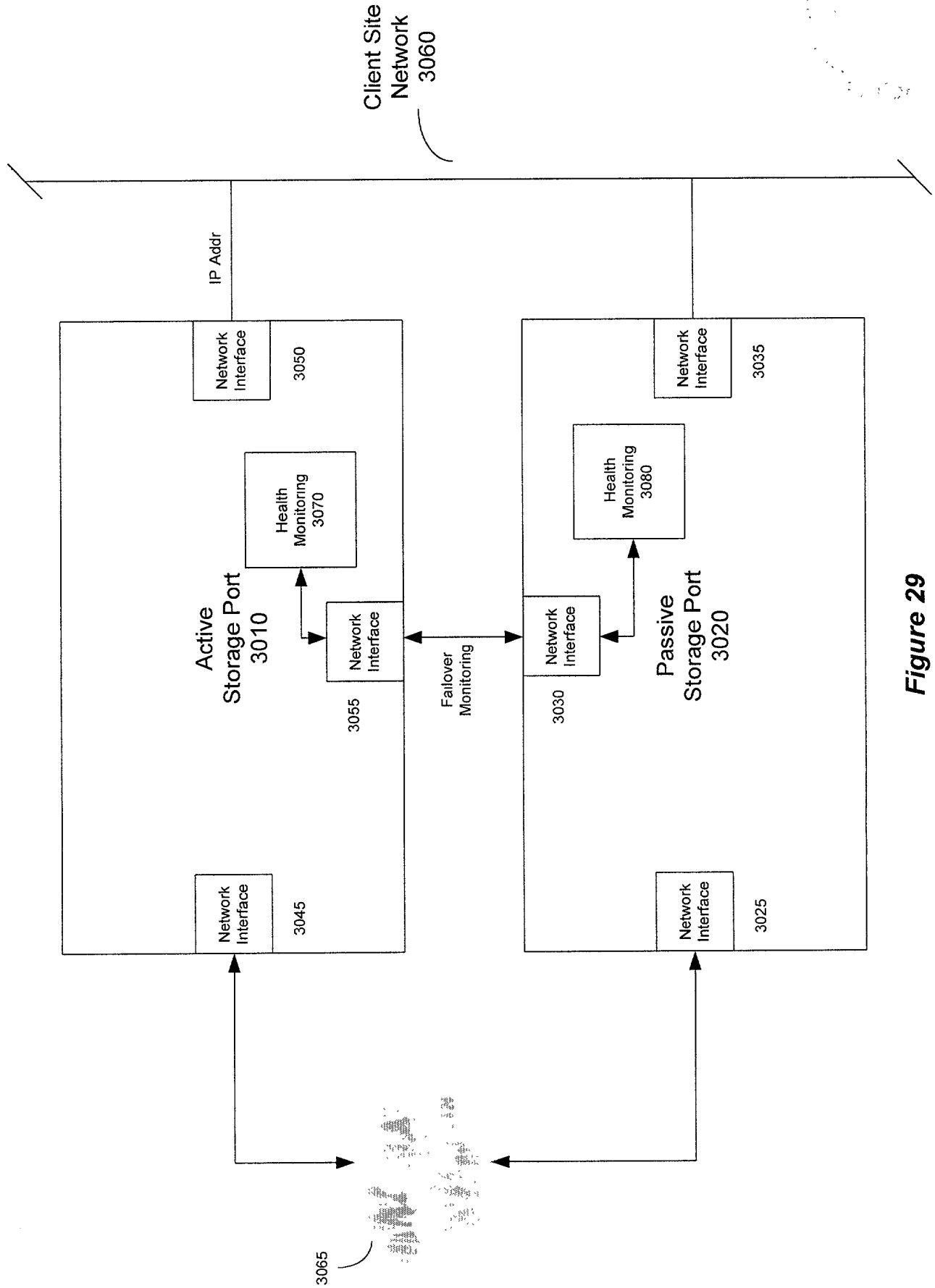
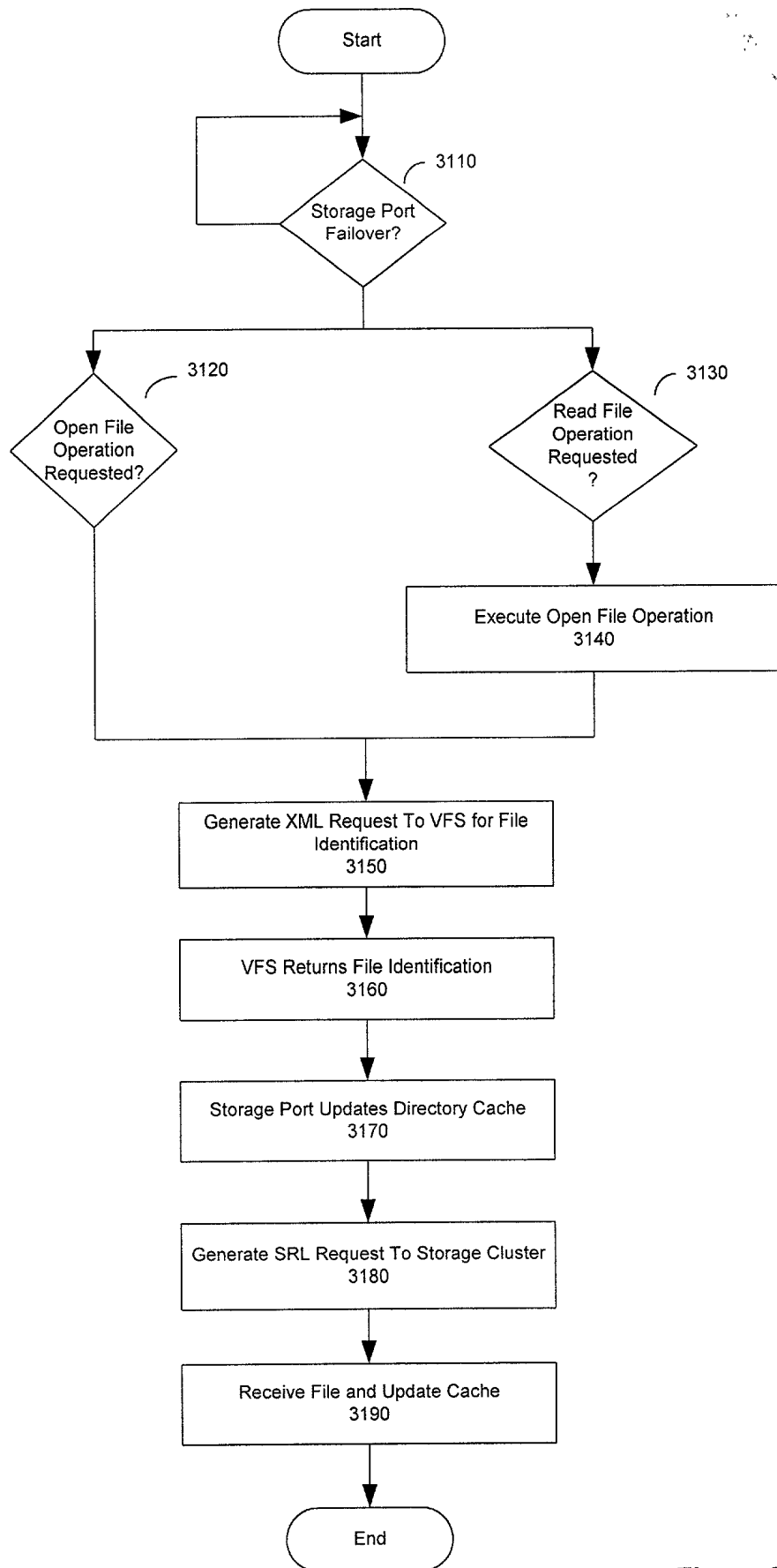
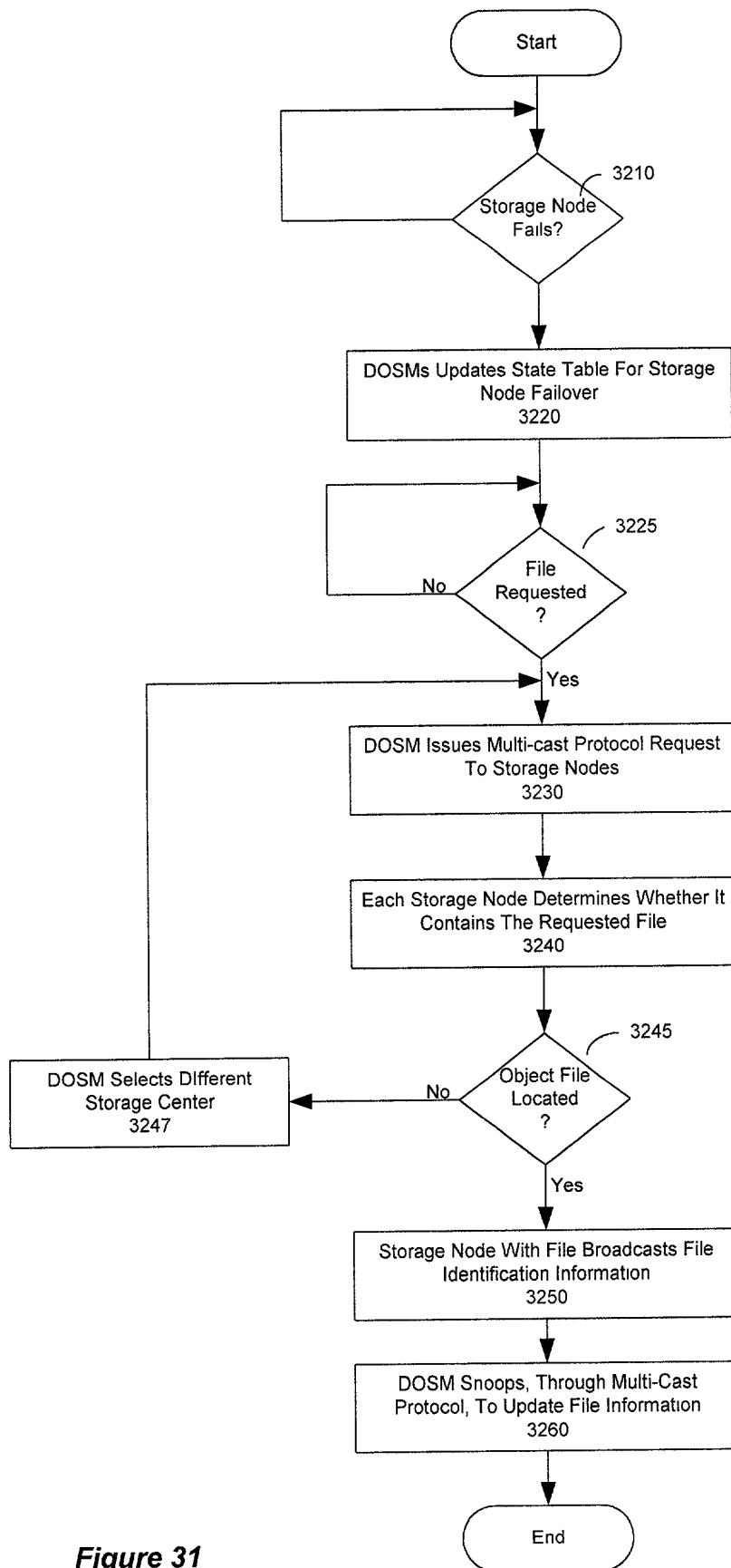


Figure 29



**Figure 30**



**Figure 31**